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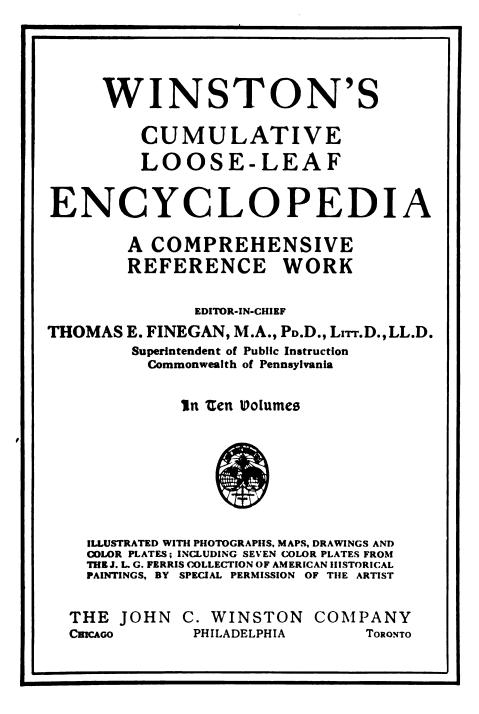


Eitt of The People of the United States Throug - the Victory Dook Campaign (A. L. A. — A. R. C. — U. S. O.) Armed Forces and Merchant Marine



**OUR FAMOUS "LOST BATTALION" IN ARGONNE FOREST** 

Seven hundred of our boys were surrounded by thousands of Huns. For thirty-six hours they had had no food. Death seemed inevitable. In answer to the enemy's messenger with an offer to spare them if they would surrender, Lieutenant-Colonel Charles Whittlesey reared his historic "Go to Hell!"—which was at once "refusal, malediction and prophecy."



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# **KEY TO PRONUNCIATION**

Three methods are used to indicate the pronunciation of the words forming the headings of the separate articles:

(1) By dividing the word into syllables, and indicating the syllable or syllables to be accented. This method is followed where the pronunciation is entirely obvious. Where accent mark; are omitted, the omission indicates that all syllables are given substantially the same value.

(2) Where the pronunciation differs from the spelling, the word is re-spelled phonetically, in addition to the accentuation.

(3) Where the sound values of the vowels are not sufficiently indicated merely by an attempt at phonetic spelling, the following system of diacritical marks is additionally employed to approximate the proper sounds as closely as may be done:

- a, as in fate, or in bare. ä, as in alms, Fr. åme, Ger. Bahn=4 of Indian names
- a, the same sound short or medium, as in Fr. bal, Ger. Mann.
  a, as in fat.
  a, as in fall.

- a, obscure, as in rural, similar to u in but, è in her: common in Indian names.
- ē, as in me=i in machine.
- e, as in met.

- e, as in her.
  f, as in pine, or as ei in Ger. Mein.
  i, as in pin, also used for the short sound corresponding to ē, as in French and Italian words.
- eu, a long sound as in Fr. jeúne, = Ger. long ö, as in Söhne, Göthe (Goethe).
- eu, corresponding sound short or medi-um, as in Fr. peu=Ger. ö short, ō, as in note, moan.
- as in not, frog-that is, short or о, medium.

- medium. ö, as in move, two. û, as in tube. u, as in tub: similar to é and also to a. u, as in bull. ü, as in Sc abune=Fr. û as in dû. Ger. ü long as in grün, Bühne. ù, the corresponding short or medium sound, as in Fr. but, Ger. Müller. oi. as in oil.
- oi, as in oil. ou, as in pound; or as au in Ger. Haus.

The consonants, b, d, f, h, j, k, l, m, n, ng, p, sh, t, v, and z, when printed in Roman type, are always given their common English values in the transliteration of foreign words. The letter c is indi-cated by s or k, as the case may be. For the remaining consonant sounds the following symbols are employed:

- ch is always as in rich.
  d. nearly as th in this = Sp. d in Madrid, etc.
  g is always hard, as in go.
  A represents the guttural in Scotch lock, Ger. nach, also other similar muturals.
- gutturals,
   Fr. nasal n as in bon.
   r represents both English r, and r in foreign words, in which it is gen-

erally much more strongly trilled. s, always as in so.

- th, as th in thin. th, as th in this.
- w always consonantal, as in we. x = ks, which are used instead.
- y always consonantal, as in yea (Fr. ligne would be re-written leny). zh, as s in pleasure = Fr. j.

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# WINSTON'S CUMULATIVE ENCYCLOPEDIA

# **VOLUME III**

Chalcondylas (kal-kon'di-las), DE-metres and the second second

science. See Babylonia. Chaldee Language  $(k a l' d \tilde{e})$ , a given to the Aramean language (or a dialect of it), one of the principal vari-eties of the ancient Semitic. Chaldee literature is usually arranged in two divi-sions: the Biblical Chaldee, or those por-tions of the Old Testament which are written in Chaldee, namely, Daniel, from ii, 4, to vii, 28; Ezra, iv, 8, to vi, 18; and vii, 12-26; and Jeremiah, x, 11; and the Chaldee of the Targums and other later Jewish writings. See Aramaic. Chaldron (chal'dron), an old English

 Later Jewish writings. See Aramatic.
 Chaldron (chal'dron), an old English measure of 36 bushels; also
 a U. S. measure, 26¼ hundredweight.
 Chaleur Bay (sha-lör'), an inlet of the Gulf of St. Law-rence, between Quebec and New Bruns-wick. The French fleet was here defeated
 be able Paiding in 1760 by the British in 1760.

**Unalmers** (cna merz, cna merz), AL EXANDER, a British journal-ist, editor, and miscellaneous writer, borr at Aberdeen in 1759, where his father the founder of the first Aberdeen news-paper, was a printer. About 1777 Chal-mers came to London, was employed as journalist, and edited the British Essay-ist, from the Tatler to the Observer, pub-lished 1803. He also issued an edition of Shakespere, with notes, in 1809; and the works of the English Poets from Chaucer to Cowper, with Johnson's Lives, and additional Lives in 1810. His most extensive work was the Gen-eral Biographical Dictionary, thirty-two vols., 1812-17. He died in London in 1834. Chalmers. GEORGE, a Scotch anti-

Chalmers, GEORGE, a Scotch anti-quary born in 1742, stud-ied law at Edinburgh, and removed to led law at Edinburgh, and removed to America, where he practised for up-wards of ten years. On his return he was appointed in 1786 clerk to the Board of Trade, an office held by him till his death in 1825. He published various political and statistical works, lives of Daniel Defoe and Thomas Ruddi-man and edited the works of Bearweit Chalice (chal'is), a term generally lives of Daniel Defoe and Thomas Ruddi-applied to a communion cup man, and edited the works of Ramsay for the wine in the Eucharist, often of and Lindsay; but his chief work was his artistic and highly ornamental character. Caledonia, a laborious historical at 4 Chalk (chak), a well-known earthy topographical account of North Britain limestone, of a white color, from the most ancient to recent times.

### Chalmers

**Chalmers**, GEORGE PAUL (1833-78), Montrose. He studied painting at the Trustees School in Edinburgh under Scott Lander and produced a number of por-traits that won high praise; it was, how-ever. as a landscape painter that he ex-celled. His Favorite Air attracted atten-tion as early as 1854. The End of the Harrest, which he painted in 1873, is one of his best examples of landscape painting. Of hardly less merit is Rain in Slichagan, crecuted in 1878. Among other works of his that deserve mention are Running Water, The Prayer, and The Legend. the latter his last painting and one of his most beautiful. The Legend is now in the National Gallery at Elinburgh. He be-came an associate member of the Royal Scottish Academy in 1867 and a full mem-ber of the academy in 1871. **Chalmers**, Tish divine, born in 1780, at Anstruther Easter, Fife. He studied at the University of St. Andrews, and was licensed as a preacher in 1799, afterwards becoming assistant to the professor of mathematics at St. Andrews. In 1803 he was presented to the parish of Kilmany, in Fife, where he made a high reputation as a preacher. In 1808 he published an Inquiry into the Extent and Stability of National Resources. In 1813 his article on Christianity ap-peared in the Edinburgh Encyclopadia, and shortly afterwards his review of Cuvier's Theory of the Earth, in the Christian Instructor. His fame as a preacher had by this time extended itself throughout Scotland, and in 1815 he was

and shortly afterwards his review of Cuvier's Theory of the Earth, in the Christian Instructor. His fame as a preacher had by this time extended itself throughout Scotland, and in 1815 he was inducted to the Tron Church of Glasgow. His astronomical discourses delivered there in the following winter produced a sensation not only in the city but throughout the country, 20,000 copies selling in the first year of their publica-tion. In 1819 he was transferred from the Tron to St. John's, a church built and endowed expressly for him by the Town Council of Glasgow, but his health having been tried by overwork he accepted, in 1823, the chair of moral philosophy at St. Andrews. In 1827 he was elected to the divinity chair in the University of Edinburgh, an appointment which he continued to hold till the Disruption from the Scot-tish church in 1843. In 1832 he pub-lished his Political Economy, and shortly afterwards his Bridgewater Treatise On the Adaptation of External Nature to the Moral and Intellectual Constitution of Man. During this period he was occupied with the subject of church extension on the voluntary wrinciple, but it was in the great non-in-

trusion movement in the Scottish church trusion movement in the Scottish church that his name became most prominent. Throughout the whole contest to the Dis-ruption in 1843 he acted as the leader of the party that then separated iron: the establishment, and may be regarded as the founder of the Free Church of Scotland, of the first assembly of which he was moderator. Having vacated his professorial chair in the Edinburgh University, he was appointed principal and primarius professor of divinity in the new college of the Free Church. He died May 30, 1847. **Châlon-sur-Saône** (shä-lōp-str

Châlon-sur-Saône (shä-lōn-sur-son), a town of France, dep. Saûne-et-Loire, on the right bank of the Saûne, which here becomes navigable for steamboats, and at the commencement of the Canal du Centre. It has a cathedral of the 13th century. a fine river quay, an exchange, communal college, etc. There are foundries, dye-works, etc., and a flourishing trade. Pop. 20,538.

Châlons-sur-Marne (shù-lõ p-s d r marn), a city of France, capital of the department Marne (Champagne), on the right bank of the river Marne. The principal public buildings are the cathedral, a fine edifice in the Gothic style; three other interest-ing Gothic churches; the Hôtel de Ville, built in 1772; the Hôtel de la Préfecture, built in 1764, one of the finest buildings of the kind in France. There are manu-factures of woolen and cotton goods; also cotton mills, tanneries, etc. In 451 Attila was defeated before the walls of Châlons, and from the 10th century it flourished as an independent state under counts-bishops, having about 60,000 in-habitants. After being united to the French crown in 1360, it declined. A celebrated camp was established by Napoleon III about 18 miles from Châlons for the purpose of training the French troops, still to some extent employed. Pop. 21,487. Chalybeate Waters (ka-lib'ē-āt), Châlons-sur-Marne (shā-lõ n-s u r marn), a city

rop. 21,431. **Chalybeate Waters** (ka-lib'ē-āt), waters hold-ing iron in solution, either as a carbon-ate or as a sulphate with or without other salts. All waters containing iron are distinguished by their styptic, inky taste, and by giving a more or less deep color with an infusion of tea or of nut-galls galls.

Chalybite (kal'i-bit), an ore of iron, **Chalyplic** (an isotry), an one of hou, carbonate (FeCo<sub>3</sub>), existing abundantly under the name of *spathic* or *sparry* ore, or *sidecrite*. A sillcoous or argillaceous variety called clay ironstone, occurring in the coal-measures, is one of the most

#### Chama

abundant and valuable cres of iron. Combined with carbonaceous matter it forms the black-band ironstone. Chama (ka'ma), the gaping cockle, valves. The giant clam, Chama pigas, 1s the largest shell yet discovered, some-times measuring four feet across. It is found in the Indian Ocean. Chamade (sha-mād'), a military term for the beat of a drum or sound of a trumpet inviting an enemy to parley.

narlev.

Chamærops (ka-mē'rops), a genus of palms belonging to the northern hemisphere, and consisting the northern hemisphere, and consisting of dwarf trees with fan-shaped leaves born on prickly petioles, and a small herry-like fruit with one seed. The C. Aumilis is the only native European palm. It does not grow farther north than Nice. The fibers of its leaves form an article of commerce under the name of crin régétal (vegetable hair). Brazilian grass is a fiber obtained from the Chama-ops argentéa. A Chinese species, C. Fortunci, is quite hardy in the south of England. England.

England. Chamalari (cham-a-lä'rē), CHAM-ALHARI, a peak of the Himálaya Mountains, at the western ex-tremity of the boundary line between Bhutan and Tibet. Height, 23,929 feet. Chamber (cham'ber), a word used in many countries to des-ignate a branch of government whose members assemble in a common apart-ment, as the chamber of deputies in France, or applied to bodies of various kinds meeting for various purposes. The

tion, etc. The office of lord-chamberlain of the household is quite distinct from that of the great-chamberlain, and is changed with the administriction. This officer has the control of all parts of the household (except the ladles of the queen's bedchamber) which are not un-der the direction of the lord-steward, the groom of the stole, or a master of the horse. The king's (queen's) chaplains, physicians, surgeons, etc., as well as the royal tradesmen, are by his appointment; the companies of actors at the royal theaters are under his regulation; and he is also the licenser of plays. **Chamberlain**, JOEEPH, an English London in 1836, and educated at London University school. He became a member of a firm of screw-makers at Birming-ham, but gave up active connection with

of a firm of screw-makers at Birming-ham, but gave up active connection with the business in 1874. He early became prominent in Birmingham both in con-nection with civic and political affairs, being an advanced radical and an able speaker, was chairman of the school-board, and thrice in succession mayor of the city (1874-76). In 1876 he entered parliament as a representative of Bir-mingham, and at the general election of 1880 he was chosen for the same city along with Mr. Bright and Mr. Munts. Under Mr. Gladstone's premiership he now became president of the Board of Trade, and a cabinet-minister, and was Bhutan and Tibet. Height, 23,929 feet. Chamber (chamber), a word used in many countries to des-ignate a branch of government whose members assemble in a common apart-ment, as the chamber of deputies in France, or applied to bodies of various kinds meeting for various purposes. The imperial chamber (in German, Reichs-kammergericht) of the old German Em-pire was a court established at Wetzlar, meat the Rhine, by Maximilian I in 1495, to adjust the disputes between the differ-ent independent members of the German Empire, and also such as arose between the direction and management of the purpose of of the commercial community. Chamberlain (chamber), an the direction and management of the pri-vate apartments of a monarch or noble man. The lord-chamberlain of Great Britain is the sixth officer of the crown. His func-tions, always important, have varied in different reigns. Among them are the six ormation; the care of the place of Westminster (Houses of Parliament); and attending upon peers at their crea-

Chamberlain

Chamberlin, THOMAS CHROWDER, an 1864 th American geologist erates. (1843-), born at Mattoon, Illinois; 13,171. graduated at Beloit College in 1866, and Cham professor of geology there 1873-82. He was president of the University of Wis-gundy Consin 1887-92, and professor of geology it is pi in the University of Chicago 1892-1919, Cham becoming emeritus professor in the latter year. In 1894 he was the geologist of the departn see, an Treatise on Geology, Origin of the Earth, now the hor reading Chamberlin. etc.

**chambers** (chām'bērz), EPHRAIM, a miscellaneous writer, and compiler of a popular *Dictionary of Arts* and *Sciences*, born at Kendal, in West-moreland, in the latter part of the 17th century. During his apprenticeship to a mathematical instrument and globe-maker in London he formed the design of compiling a *Cyclopardia*, and even wrote some of the articles for it behind his master's counter. The first edition was published in 1728. Several subse-quent editions appeared previously to his death in 1740, and it was the basis of the cyclopædia of Dr. Abraham Rees. **Chambers**, ROBERT, historical and younger of two brothers originally com-posing the publishing firm of W. & R.

Chambers, miscellaneous writer, the younger of two brothers originally com-posing the publishing firm of W. & R. Chambers, was born at Peebles in 1802, his father being a muslin weaver. At the age of sixteen, with a collection of family books worth about \$10, he began business as a bookseller in Edinburgh, his brother William, two years his senior, establishing himself near by as a printer: Robert's Illustrations of the Author of Warerly, his Traditions of Edinburgh, and other works relating to Scotland, Waverly, his Traditions of Edinburgh, and other works relating to Scotland, were very favorably received, and in 1832 the two brothers commenced Cham-bers' Edinburgh Journal, the success of which was very great. From that time they united in the publishing business, establishing a successful house which still exists, one of its best known publi-cations being Chambers' Encyclopadia. Robert was active in authorship, his most important work being the once fa-mous Vestiges of Creation, which was not positively known to be his until years after his death, which occurred in 1871. William, who died in 1883, was also an author of various works, and gave a

THOMAS CHROWDER, an 1864 the town was burned by the Confed-American geologist crates. Pop. (1910) 11,800; (1920)

Chambertin (shän-ber-tan), a supe-rior kind of red Bur gundy wine, named after the place where it is produced.

it is produced. Chambéry (shän-bā-ri), a town of department Savoie. It is an archbishop's see, and contains a cathedral, a castle, now the prefecture, the palace of justice, barracks, etc. The old ramparts have been converted into public walks. In its vicinity are excellent baths, much fre-quented in summer. It has manufac-tures and distilleries. Pop. 16,852. Chambard (shän-bör), a castle,

quented in summer. It has manufac-tures and distilleries. Pop. 16,852. Chambord (shäp-bör), a castle, park, and village, near Blois, department of Loir-et-Cher, in France. The splendid castle, in the Renaissance style, was mainly built by Francis I, being begun in 1526, and was completed under Louis XIV. In 1745 it was given by Louis XV to Marshal Saxe, who died there in 1750. Napoleon gave it to Berthier, and in 1821 a com-pany of Legitimists bought it and gave it to the Duke of Bordeaux (see next art.) in name of the people of France. Chambord (shäp-bör), il ENBt MARIE DIEUDONNÉ, COMTE DE, Duke of Bordeaux, the last representative of the elder branch of the French Bourbon dynasty, called by his partisans Henry V of France. He was born in 1820, seven months after the assassination of his father, Prince Charles Ferdinand d'Artois, Duke de Berry. Charles X, after the revolutionary outbreak of 1830, ab-dicated in his favor; but the young count was compelled to leave the country with

Waverly, his Traditions of the Author of d'Artos, Duke de Berry. Charles X, after Waverly, his Traditions of Edinburgh, the revolutionary outbreak of 1830, ab-and other works relating to Scotland, dicated in his favor; but the young count were very favorably received, and in 1832 the two brothers commenced Cham-bere' Edinburgh Journal, the success of which was very great. From that time they united in the publishing business, islil exists, one of its best known publi-still exists, one of its best known publi-the Drincess Maria Theresa, eldest cations being Chambers' Encyclopædia. Robert was active in authorship, his 1851 inherited the domain of Frohsdort, most important work being the once fa-mous Vestigges of Creation, which was not positively known to be his until years after his death, which occurred in 1851. The let slip no opportunity of urging his William, who died in 1883, was also an author of various works, and gave a library to his home town, Peebles. Chambersburg brough, county seat cies, destroyed all chance of his success of Franklin Co., Pennsylvania, 52 miles sion. He died in 1883, leaving no heir. s. w. of Harrisburg. It is the seat of the Wilken College for Women (Presbyteriam), and the start of the conset of the Chamber (shi the seat of the Wilken College for Women (Presbyteriam), and the start of the conset of the the seat of the chamber (shi the seat of the cha s.w. of Harrisburg. It is the seat of the Chambre Ardente (shān-br ar Wilson College for Women (Presbyterian) and Penn Hall School for Girls. There chamber), the name formerly given in are manufactures of machinery, etc. In France to an apartment, hung with black

#### Chameleon

and lighted with tapers, in which sen-tence of death was pronounced on heinous effenders. The name was afterwards more especially given to those extraordi-mary tribunals which, from the time of Francis I, ferreted out heretics by means of a system of espionage, directed the proceedings against them, pronounced sentence, and also saw it carried into error time. entence, recution

**execution. Chameleon** (ka-mě<sup>3</sup>li-on), a genus of reptiles belonging to the Saurian or lizard order, a native of parts of Asia, Africa, and the south of Europe. The best-known species, *Cha*-marleo Africanus or C. tulqaris, has a naked body 6 or 7 inches long, with a "rehensile tail of about 5 inches, and



Chameleon (Chamaleo Africanus).

Chameleon (Chamaleo Africanus). feet suitable for grasping branches. The akin is cold to the touch, and contains small grains or eminences of a bluish-gray color in the shade, but in the light of the sun all parts of the body become of a grayish-brown or tawny color. It possesses the curious faculty, however, of changing its color, either in accordance with its environment or with its tem-per when disturbed, the change being due to the presence of clear or pigment-bear-ing contractile cells placed at various depths in the skin, their contractions and dilatations being under the influence of the nervous system. Their power of fasting and habit of inflating themselves gave rise to the fable that they lived on air, but they are in reality insectivorous, taking their prey by rapid movements of a long, viscid tongue. In general habit they are dull and torpid. Chameleon Mineral, to mangenate

Chameleon Mineral, a name given to manganate of potassium, because a solution of it of potassium, because a solution of it changes from green, through a succession of colors, to a rich purple. Chamfort (s hā p-f o r), SEBASTIEN-man of letters, wit, and revolutionist, born in 1741. By his success as drama-

tist, critic, and conversationist he ob-tained a place in the French Academy, a pension, and a post at court. An inti-mate friend of Mirabeau, he threw him-self heartily into the revolution, was secretary to the club of the Jacobins, was one of the first of the storming party in the attack on the Bastille, and having been employed by Roland in the Bibli-othèque Nationale published the first twenty-six Tableaux Historiques de lo Révolution. His cynical wit could not, however, restrain itself, and he was de-nounced and threatened with imprison-ment. Rather than undergo it he in-flicted fatal injuries upon himself, dying in 1794. He is seen at his best in the collection of bon mots published under the title of Chamfortiana. Chamier (sham'i-ér), FREDERICK, an English writer of fiction, born in 1796; died in 1870. He entered the navy, took part in the last campaigns against the French, and distinguisbed himself in the American war of 1812. He retired in 1833, with the rank of captain. His principal works are, The Life of a Sailor; Ben Brace; The Arethusa; Jack Adams and Tom Bowline. Chamisso (shā-mis'o), ADELBEET DE, a German poet, French by birth, born at the castle of Boncourt, in Champagne, in 1786. His family being driven to Berlin by the revolution, he became, from 1796 to 1798, page to the queen-mother, and afterwards entered the Prussian service, where he remained till 1808. He then revisited France: but shortly after returned to Prussia, and for three years devoted himself to the study of natural science at Berlin. In 1815 he accompanied as naturalist an expedition for the discovery of the north-west passage, and on his return took up his residence at Berlin, where he was appointed superintendent of the botanic

west passage, and on his return took up his residence at Berlin, where he was appointed superintendent of the botanic ms residence at Berlin, where he was appointed superintendent of the botanic garden. He died at Berlin in 1838. He wrote several works on natural history and botany, and an account of his voy-age, but his reputation as a naturalist has been somewhat eclipsed by that which he acquired as a poet. In 1804-6, in concert with Varnhears work base he which he acquired as a poet. In 1804-6, in concert with Varnhagen von Ense, he published a collection of poems, under the name of the *Muscs' Almanac*; and in 1813 appeared his famous tale, *Peter Schlemihl, or the Shadowless Man*, the plot suggested by a casual question of Fouque's. Many of his ballads and songs are masterpieces in their way and still maintain their nonularity.

chamois (sham'wa; Antilöpe rupi-capra), a species of goatlike antelope inhabiting high, inaccessible

Chamoia

#### Chamomile

mountains in Europe and Western Asia. Its horns, which are about 6 or 7 inches long, are round, almost smooth, perpendic-ular and straight until near the tip, where they suddenly terminate in a hook directed backwards and downwards. Its hair is brown in winter, brown fawn



Chamois (Antilope rupicapra).

color in summer, and grayish in spring. The head is of a pale yellow color with a black band from the nose to the ears and surrounding the eyes. The tail is black. Its agility, the nature of its haunts, and its powers of smell render its pursuit an exceedingly difficult and hazardous occupation.

Chamomile, or CAMOMILE (kam'o-mil; Anthémis nobilis), a well-known plant belonging to the nat-ural order Composite. It is perennial, and has slender, trailing, hairy, and branched stems. The flower is white, with a yellow center. Both leaves and flowers are bitter and aromatic. The tragrance is due to the presence of an essential oil, called oil of chamomile, of a light blue color when first extracted, and used in the preparation of certain medicines. Both the leaves and the flowers are employed in fomentations and poultices, and also in the form of an inpoultices, and also in the form of an in-fusion as a stimulant stomachic. It is cultivated in gardens in the United States, and also found wild.—Wild cham-omile (Matricaria chamomilla) is now

out of use in England; but its medicinal properties resemble those of common chamomile, and it is still used in some parts of Europe. Chamond (shä-mön), ST., a manu-facturing town of France, department Loire, on the railway from St. Étienne to Lyons. It is well built, has an old castle and a handsome parish church; and has silk factories, large iron-foundries, dye-works, etc. Fop. 15.469. 15.469.

15,469. Chamouni (shå-mö-ně), or CHA-moNIX (shå-mö-ně), a celebrated valley in France, department Haute-Savoie, in the Pennine Alps, over 3000 feet above sea-level. It is about 12 miles long, by 1 to 6 miles broad, its E. side formed by Mont Blanc and other lofty mountains of the same range, and it is traversed by the Arve. The moun-tains on the E. side are always snow-clad, and from these proceed numerous glaciers, such as the Glacier de Bossons and the Mer de Glace. The village of Chamouni (pop. 806) is much frequented by tourists, and is one of the points from which they visit Mont Blanc. There is a statue in the village to Saussure who first ascended the peak (1786). Champagne (shan-pån-y', or shām-pān'), an ancient prov-ince of France, which before the revolu-tion formed one of the twelve great mili-tary governments of the kingdom. It forms at present the departments of Marue, Haute-Marne, Aube, Ardennes, and part of those of Yonne, Aisne, Seine-et-Marne, and Meuse. Troves was the capital. Champagne (sham-pān'), a French 15,469. Chamouni (shá-mö-nē), or Ci MONIX (shá-mo-nē), Сна-

capital.

Champagne (sham-pān'), a French wine, white or red, which is made chiefly in the department which is made chiefly in the department of Marne, in the former province Cham-pagne, and is generally characterized by the property of creaming, frothing, or effervescing when poured from the bottle, though there are also still Champagne wines. The creaming or slightly spar-king Champagne wines are more highly valued by connoisseurs, and fetch greater prices than the full-frothing wines, in which the small quantity of alcohol they contain escapes from the froth as it rises to the surface, carrying with it the aroma and leaving the liquor nearly vapid. The property of creaming or frothing possessed by these wines is due to the fact that they are partly fermented in the bottle, carbonic acid being thereby produced. Wine of a similar kind can of course be made elsewhere, and some of the German champagnes are hardly to be distinguished from the French. Much artificial or imitation champagne is sold.

# Champaign

Champaign, a city of Champaign Co., Illinois, 128 miles s. w. of Chicago. It is the seat of the Univer-sity of Illinois and has manufactures of mill products, auto tools, sectional house, hait goods, discrissal fixtures, locomotive cranes, etc. Pop. (1910) 12,421; (1920) 15,873.

**Champerty** (sham'per-ti), or CHAM-**PARTY**, in *law*, is a bar-**gain with the plaintiff** or defendant in **any suit to have part of** the land, debt, or other thing sued for, if the party that undertakes it prevails therein, the cham-pertor meanwhile furnishing means to carry on the suit. Such bargains are illegal.

Champ-de-Mars (shäp-dé-märs), that is, Field of Mars, an extensive piece of ground in Paris, formerly used as a place of military exercise. It was here that Louis XVI swore to defend the new constitution of 1790, and it was the site of various expo-sitions. Here is the Eiffel Tower. See Parie. sitions. Paris.

Champignon (sham-pin'yon), a name given to the common mushroom (Agaricus compestris).

Champlain (sham-plān'), LAKE, a lake chiefly in the United States, between the states of New York and Vermont, but having the north end of it in Canada; length, about 120 miles; breadth, from a half mile to 15 miles. It is connected with the Hudson by canal, and has for outlet the Richelieu or Sorrel river, into the St. Lawrence. The scenery is beautiful and attracts many visitors. It was discovered by Samuel Champlain (q. v.) in 1600. The possession of the lake was a matter of importance in the war of 1812-15, and Sir George Prevo.t's attempted invasion of New York was de-feated here in a naval battle by the Amer-icans in 1814. The American squadron was under the command of Captain Mac-donough: Captain Downie commanded the British flotilla. The rout of the land forces succeeded the naval battle. Champlain (shap-plap), SAMUEL a

forces succeeded the naval battle. Champlain (shāp-plap), SAMUEL, a French naval officer and maritime explorer, the founder of Quebec, was born about 1570; died 1635. His exploits in the maritime war against Spain in 1595 attracted the attention of Henry IV, who commissioned him in 1603 to found establishments in North America. He made three voyages for that purpose, in the last of which he founded Quebec, and was in 1620 ap-pointed Governor of Canada. He did much to foster the fur trade and explore the region of the Great Lakes, and he proved an able administrator, but his

conflicts with the Iroquois Indians roused a bitter enmity in that confederacy from which Canada long suffered.

a bitter ennity in that confederacy from which Canada long suffered. Champollion (shāp-pol-yôp), JEAN FRANÇOIS, a French scholar, celebrated for his discoveries in the department of Egyptian hieroglyph-ics, born at Figeac, department of Lot, in 1790. At an early age he devoted him-self to the study of Hebrew, Arabic, Coptic, etc., and in 1809 became profes-sor of history at Grenoble. He soon, however, retired to Paris, where, with the aid of the trilingual inscription of the Rosetta Stone and the suggestions thrown out by Dr. Thomas Young, he at length discovered the key to the graphic system of the Egyptians, the three elements of which --figurative, ideo-graphic, and alphabetic-he expounded before the Institute in a series of me-moirs in 1823. These were published iu 1824 at the expense of the state, under the title of Précis du Système Hiéro-glyphique des Anciens Egyptians. In 1820 Charles X appointed him to super-intend the department of Egyptian anti-uities in the Louvre: in 1828 he went as director of a scientific expedition to Egypt; and in 1831 the chair of Egyp-tian archæology was created for him in the Collège de France. He died at Paris in 1832. Other works are his Gram-maire Egyptien, and Dictionnaire Hiéro-glyphique. Champollion-Figeac (shāp-polglyphique

Champollion-Figeac (shā p-pol-yöp-fē-zhāk), JACQUES JOSEPH, the elder brother of the preceding, born at Figeac in 1778, died in 1867. His principal works are: An-tiquités de Grenoble, 1807: Paléographie Universelle; Annales des Lagides, 1819; Traité élémentaire d'Archéologie, 1843; Écriture démotique Égyptienne, 1843; L'Égypte Ancienne, 1850. Channe San Bachelille.

Chance. See Probability.

Chancel (chan'sel) is that part of tween the altar or communion-table and

tween the altar or communion table and the rail that encloses it. **Chancellor** (chan'sel-or), a high of-ficial in many of the kingdoms of Europe, the office including in its duties the supervision of charters and other official writings of the crown requiring solemn authentication. The title and office are also ecclesiastical, and hence each bishop still has his chancel-lor, the principal judge of his consistory. In the new German empire, the chan-cellor (Reichskansler) is president of the Federal Council, and has the general conduct of the imperial administration In the United States, a chancellor is the

# Chancellor

judge of a court of chancery or equity established by statute. The Lord High-chancellor of Great Britain and Ireland (originally of Eng-iand), who is also Keeper of the Great Seal, is the first judicial officer of the crown, and exercises an extensive juris-diction as head of the Supreme Court of Judicature. He ranks as first lay per-son of the state after the blood-royal. He is a cabinet minister and a privy-councilor in virtue of his office, is pro-lo ator of the House of Lords by pre-scription, and vacates his office with the ministry which appoints him. There is also a Lord Chancellor of Ireland, who is the head of the judicial bench. He is not a member of the British ministry. The chancellorship of Scotland was abol-ished at the union.

as the head of the judichi bench. The is not a member of the British ministry. The chancellorship of Scotland was abol-ished at the union. The Chancellor of the Exchequer is the principal finance minister of the British government, and as all questions of sup-ply originate in the House of Commons, a peer cannot be conveniently appointed to this office. It is sometimes held along with that of first lord of the treasury. Chancellor of a university, the high-est honorary official in the university, from whom the degrees are regarded as proceeding. The post in Britain is usu-ally occupied by a person of rank. Chancellorsville (chan'sel-ors-vil), from each of the greatest battles of the American Civil war, in which, on the 2d, 3d, and 4th of May, 18G3, a victory was gained by the Confederates under Generals Lee and Jackson over the Federal troops commanded by General Hooker. Both armies lost heavily in the battle, the Confederates suffering severely in the loss of their brilliant leader Jackson. Chancery (chan'se-ri), formerly the highest court of justice in England next to Parliament, but since 1873 a division of the High Court of Justice, which is itself one of the two departments of the Supreme Court of Judicature (which see). Formerly it embraced six superior courts called high courts of chancery, viz.; the court of the courts of chancery, viz.; the court of the

Judicature (which see). Formerly it embraced six superior courts called high courts of chancery, viz.: the court of the lord high-chancellor, the court of appeal in chancery, and the courts of the three vice-chancellors, with various inferior courts. The jurisdiction of the court was both ordinary and outportinger the courts. The jurisdiction of the court was both ordinary and extraordinary, the former as a court of common law, the latter a court of equity. The extraordi-nary court, or court of equity, proceeded upon rules of equity and conscience, moderating the rigor of the common law, and giving relief in cases where there was no remedy in the common law courts.

The Chancery Division now consists of the lord-chancellor as president and five justices. In American law a court of general equity jurisdiction. Separate courts of chancery or equity exist in some of the States; in others the courts of law sit also as courts of equity; in others the distinction between law and equity has been abolished or never ex-isted. The Chancery Division now consists of

Chanda (chan-dä'), a town of India, Central Provinces, surround-ed by a wall 5½ miles long, with manu-factures and a considerable trade. Pop. about 17,000. It is the capital of a dis-trict of the same name.

Chandausi (chan-dou-sē'), a town inces, Moradabad district. Pop. about 30,000.

Chanderi (chan-dā'rē), or CHAN-DHAIREE, a town in Central India, Scindia's Dominions, in a hilly and jungly tract, 103 miles 8. of Gwalior, formerly of considerable extent and splen-dor, but now an insignificant place. There is a fort which figured much is the wars of the Mogul dynasty. Chanderna core (Chun'der-nug'er).

There is a fort which figured much is the wars of the Mogul dynasty. Chandernagore (chun'der-nug'er), or CHAN'DAENAAG-AB ('city of sandalwood'), a town in Hindustan, belonging to France, on the right bank of the Hooghly, 16 miles N. N. w. of Calcutta. The French estab-lished a formal cession of it, together with its territory of 2325 square acrea, from Aurungzebe. It was three times occupied by the British, but was finally restored to the French in 1816. Pop. of town and territory, 25,000. Chandpur (chänd'pur), a town of N. W. Provinces; thriving, well paved and drained. Pop. about 12,000. Chang-Chow (chäng' chou), one of the largest cities of China, in the province of Fokien, 36 miles W. by S. of Amor, its port. It has an active trade. Pop. est. 1.000,000. Chang-Chow, a city of China in by s. of Nanking. Pop. 360,000. Chang-Sha, a city of China, capital the Heng-Hiang. Pop. 250,000.

**Chank-shell**, the common conch-shell (*Turbinella pyrum*), of a spiral form, worn as an ornament by the Hindu women. A shell with its spires or whorls turning to the right is held in peculiar estimation and fatcher a biab price. fetches a high price. The chank is one of the gasteropodous mollusca. Channel Islands (chan'el), a group of islands in the



#### Ciannels

English Channel, off the W. coast of de-partment La Manche, in France. They belong to Britain, and consist of Jersey, Guernsey, Alderney, and Sark, with some dependent islets. They are almost ex-empt from taxation, and their inhabitants enjoy besides all the privileges of British subjects. The government is in the hands of bodies called the "states," some members of which are named by the people, and others sit *ex officio*. The slands have been fortified at great ex-pense. They form the only remains of the Norman provinces once subject to England. Area 75 sq. miles, pop. (1911) 96,900. See the separate articles. Channels, or CHAIN-WALES, of a planks projecting horizontally from the ship's outside, abreast of the masts. They are meant to keep the shrouds clear of the supwale.

The y are meant to keep the shrouds clear

divine and writer, born at Newport, Rhode Island, in 1780. He studied at Harvard College, became a decided Uni-tarian, and propagated Uni-Rhode Island, in 1780. He studied at Harvard College, became a decided Uni-tarian, and propagated Unitarian tenets with great seal and success. His first sppointment as a pastor was in 1803, when he obtained the charge of a con-gregation in Boston, and before long he became known as one of the most popu-lar preachers of America. His reputa-tion was still further increased by the publication of writings, chiefly sermons, reviews etc., on popular subjects. He died at Burlington, Vermont, in 1842.— His nephew, WILLIAM HENRY CHAN-NING, born 1810, also a Unitarian preacher (for some time at Liverpool) and supporter of the socialistic move-ment, wrote a memoir of his uncle and other works. Died in 1884. Chant, a short musical composition reciting note, on which an indefinite number of words may be intoned, and a melodic phrase or cadence. A single chant consists of two strains, the first of three and the second of four bars in length. A double chant has the length of two single ones. Chantaralla (shan-ter-el'), a Brit-

length. A double of two single ones.

**Chanterelle** (shan-tër-el'), a Brit-ish edible mushroom (Cantherelius cibarius) of a bright orange color, with a pleasant fruity small mell.

smell. Chantilly (shān-tē-yē), a town of France, department of the Oise, 25 miles N.N.E. of Paris, cele-brated for a variety of face made here and in the neighborhood; for the splen-did château, built by the great Condé,

in great part leveled by the mob at the in great part leveled by the mob at the revolution, but rebuilt by the Duc d'Au-male after the estate came into his pom-session in 1850. Along with its fine do-main and its splendid art collection it was presented by the duke to the French In-stitute in 1887. Chantilly is a horse-racing center. Pop. 4632. **Chantrey** (chan'tri), SIE FRANCIS, an English sculptor, born in 1781 near Sheffield, was the son of a well-to-do carpenter. Even in boyhood his chief amusement was in drawing and modeling figures, and he was appren-

modeling figures, and he was appren-ticed in 1797 to a carver and gilder. In 1802 he commenced work for himself at Sheffield by taking portraits in crayons. After studying at the Royal Academy in London be maturally southed in the Shefield by taking portraits in crayons. After studying at the Royal Academy in London he eventually settled in the metropolis, where he presented numerous busts at the exhibitions of the Royal Academy. This was the commencement of his career of fame and fortune, and he soon came to be regarded as the first monumental sculptor of his time. In 1816 he was chosen an associate and in 1818 a member of the Royal Academy. He was knighted in 1835, and died in 1842. His most celebrated works are the *Sleeping Children*, in Lichfield Cathedral; the statue of Lady Louisa Russell, in Woburn Abbey; and statues of Pitt, Wallington and others in London. **Chantry** (chan'tri), an endowment to provide for the singing of masses; also the chapel where the masses for the repose of their souls. **Chanute** (châ-nöt'), a city of Noosho Co., Kansas, 126 miles 5. s. w of Kansas City, Missouri, surrounded by about 2000 oil and gas wells. Here are the headquarters and car shops of the Southern Division of the Santa Fe R. R., with 1150 employees. It has refineries, planing mill, and manufactures of cement, brick, gas mantels, milling machines, etc. Pop. (1920) 10,286. **Chao.Chow** (cha'o cha'ou), a city of China, province

Pop. (1920) 10,286. Chao-Chow of China, province Quangtung, on the river llan, 195 miles N.E. of Hong-Kong, the center of an important maritime division of the prov-ince. Pop. est. at 200,000. Chaos (kā'os), in old theories of the earth, the void out of which sprang all things or in which they ex-isted in a confused, unformed shape be-fore they were separated into kinds. Chapel (chap'el), a term applied to buildings of various kinds erected for some sort of religious service. Thus it may mean a subordinate place of worship attached to a large church.

# **Chapel**

#### Chaplain

and especially to a cathedral, separately dedicated and devoted to special services. (See Cathedral.) Or it may mean a building subsidiary to a parish church and intended to accommodate persons residing at a distance from the latter; or a place of worship connected with a palace, castle, university, etc. **Chaplain** (chap'lin), literally a per-son who is appointed to a chapel, as a clergyman not having a parish or similar charge, but connected with a court, the household of a noble-man, an army, a prison, a ship, or the like. Chaplains in the United States service have the assimilated rank of captain. They receive a yearly pay of \$1500. captain. \$1500.

\$1500. Chaplet (chap'iet), a string of beads used by Roman Catholics to count the number of their prayers. In heraldry it means a garland of leaves, with four flowers among them at equal distances; in architecture, a small molding carved into beads, pearls, etc. Chapman (chap'man), in general a merchant or trader, but in modern times more specifically a hawker or one who has a traveling booth.

booth. Chapman, George, an English poet, the earliest, and perhaps

the best, translator of Homer, was born in 1557, and died in 1634. He was edu-cated at Oxford, and in 1576 proceeded to London; but little is known of his

Chapman, J. WILBUR (1859-1918), Chapman, J. WILBUR (1859-1918), Chapman, J. WILBUR (1859-1918), an American clergyman and evangelist, born at Richmond, Ind. He graduated from Lane Theological Sem-inary in 1882 and was pastor of the First Reformed Church. Albany, 1884-90. For three years he was pastor of the Bethany Presbyterian Church, Philadelphia; and after a notable evangelistic campaign, during which he visited various parts of the country, he returned to the Bethany Church in 1890. He was pastor of the Fourth Avenue Presbyterian Church, New York, 1900-05, after which he was repre-sentative-at-large for the Evangelistic Committee of the Presbyterian Church. Chappa (cha'pö'), a seaport of

Chapoo (chả'pö'), a seaport of China, province Chekiang, on the N. side of a large bay, 35 miles N. from Ningpu. It carries on a con-siderable trade with Japan.

Chapra ("hap-ra'). See Chuprah.

Chaptal (shap-tal), JEAN ANTOINE CLAUDE, Count de Chante-loup, peer of France, was born in 1750, and devoted himself to the study of medi-cine and the natural sciences, and espe-

clally chemistry. He supported the revo-lution, and was appointed in 1799 coun-selor of state, and in 1800 minister of the interior, in which post he encour-aged the study of the arts and estab-lished a chemical manufactory in the neighborhood of Paris. In 1805 he was made a member of the senate. On the restoration he was obliged to retire to private life, but in 1816 the king nomi-nated him a member of the Academy of Sciences, and latterly made him a peer. Chaptal's works on national industry, chemistry, the cultivation of the vine, etc., were very much esteemed, especially his Chimie Appliquée aux Arts (Paris, 1807, four vols.), his Chimie Appliquée à l'Agriculture (Paris, 1823, two vols.), and De l'Industrie Française (Paris, 1819, two vols.). Chapter divisions of a book

CHAPTER (chapter), one of the chief divisions of a book. As the rules and statutes of ecclesiastical establishments were arranged in chap-ters, so also the assembly of the mem-bers of a religious order, and of canons, was called a *chapter*. The orders of knights used this expression for the meetings of their members, and some societies and corporations call their as semblies *chapters*. Chapter houses Chapter (chap'ter), one of the chief divisions of a book. As

semblies chapters. Chapter-house, the building at-dral or religious house in which the chapter meets for the transaction of business. They are of different forms, but are often polygonal in plan. Some-times they were the burying-place of clerical dignitaries. See Cathedral. Char, or CHARR (char; Salmo um-bla), a European fresh-water fish of the salmon genus, found plenti-fully in the deeper lakes of England, Wales, and Ireland, more rarely in those of Scotland. The chars inhabit the codder regions of deep waters, where the temperature is less liable to vary. The body somewhat resembles that of a trout, but is longer and more slender, as well but is longer and more slender, as well as more brilliant in coloring, with crim-son, rose, and white spots; weight some-times 2 lbs., but generally under 1 lb. Char is much esteemed for the lb. table.

table. **Characeæ** (ka-rā'se-ē), an order of crypt og a m o us plants, nearly related to the Algæ, composed of an axis consisting of parallel tubes, which are either transparent or encrusted with carbonate of lime, inhabiting stag-nant water, both fresh and salt, be neath which they are always submersed. They are most common in the temper-ate zone, and sent an unbealthy facid ate zone, and emit an unhealthy, fetid odor.

### Charade

**Charade** (sha-rid' or sha-rid'), a kind of riddle, the subject of which is a word that is proposed for discovery from an enigmatical description of its several syllables, taken separately as so many individual and significant words. When discussion is a several syllable is a several syllable in the several syllable is a several syllable in the several syllable is a several syllable in the several syllable in the several syllable is a several syllable in the several syllable in the several syllable is a several syllable in the several syllable in the several syllable is a several syllable in the several syllable in the several syllable is a several syllable in the sever

arately as so many individual and signifi-cant words. When dramatic represen-tation is used to indicate the meaning of the syllables and the whole word it is called an acting charade. **Charadrius** (kara'd ri-us), the genus to which the plover belongs, forming the type of the family Charadriadze, which includes also the lapwings, pratincoles, oyster-catch-ers, turnstones, sanderlings, etc.

Charas (cha'ras). See Charras.

The showing is particulated by the set of th

Charente

wooden vessels, as during long voyages has acquired an offensive smell, is de-prived of it by filtration through char coal powder. Charcoal can even re-move or prevent the putrescence of ani-mal matter. It is used as fuel in vari-ous arts, where a strong heat is re-quired, without smoke, and in various metallurgic operations. By cementation with charcoal, iron is converted into steel. It is used in the manufacture of gunpowder. In its finer state of aggre-gation, under the form of ivoryblack, lampblack, etc., it is the basis of black paint; and mixed with fat oils and resin-ous matter, to give a due consistence, it forms the composition of printing-ink. Chard (chârd), the leaves of arti-choke covered with straw in order to blanch them and make them less bitter.—Beet chards, the leaf-stalks and midribs of a variety of white beet in which these parts are greatly developed, dressed for the table. Chardin (shår-dap), JOHN, son of a Protestant jeweler in Paria, and a jeweler himself, was born in 1643. Sent by his father to the East Indies to

2-3

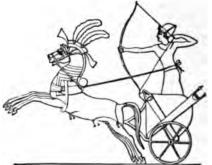
#### Charenton-le-Pont

abound on the coast. Salt and brandy are the only articles manufactured to any great extent. Capital La Rochelle. Pop. 453,793.

(shå-rån-tön-l-Charenton-le-Pont about 5 miles east from Paris, at the confluence of the Marne with the Seine, with numerous mercantile and manufac-

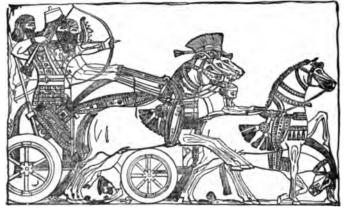
connuence of the Marke with the Seine, with numerous mercantile and manufac-turing establishments. Pop. 18,034. **Charge** (charj), in heraldry, signifies the various figures depicted on the escutcheon.—In gunnery charge signifies the quantity of powder used at one discharge of a gun.—Charge, in military tactics, is the rapid advance of infautry or cavalry against the enemy, with the object of breaking his lines by the momentum of the attack. Infantry generally advance to about 100 yards and fire, then gradually quicken their pace into the charge-step, and dash at the enemy's lines. Cavalry charge in echelon or column against infantry, which is usually formed in squares to receive them. **Chargé-d'Affaires** (shår-zh ā-dà f-ăr), the title of an inferior rank of diplomatic agents. of an inferior rank of diplomatic agents. See Minister, Foreign.

for pleasure and in war. Charlots, such as those used among the Egyptiana, Assyrians, Greeks, and Romans, were of various forms. A common form was open Chariots, such the Egyptians, Romans, were of



Egyptian War-chariot.-Rosellini

behind and closed in front, and had only two wheels. The chariot was strongly and even elegantly built, but not well adapted for speed. In ancient warfare chariots were of great importance; thus we read of the 900 iron chariots of Sisera



Assyrian War-chariot.-Layard

Charikar (char-i-kiir'), a town of Afghanistan, in the district of Kohistan, 21 miles north of Cabul. Pop. 5000.

(chār'ing-kros), the Charing-Cross Charing-Cross (charing kros), the titular center of London, so named from a cross which stood until 1647 at the village of Charing in memory of Eleanor, wife of Edward I. It is now a triangular piece of roadway at Trafalgar Square. Chariot (char'i-ot), a term applied to vehicles used anciently both

of as giving him a great advantage against ict the Israelites. The Philistines in their ul. war against Saul had 30,000 charlots. The sculptures of ancient Egypt show that the charlots formed the stiength of that the chariots formed the stiength of the Egyptian army, these vehicles being two-horsed and carrying the driver and the warrior, sometimes a third man, the shield-bearer. There is no representation of Egyptian soldiers on horseback, and consequently when Moses in his song of triumph over Pharaoh speaks of the 'horse and his rider,' 'rider' must be un-



### Charites

Association of the spear is also attached for the side, filed with arrows, and each all the appointments are side so the chariot shown in the figure is drawn by three horses are based of the system of the system. The system of the system. The set of Lucas Co. Lows, the set of Lucas Co. Lows, the set of the system of the system of the system of the system. The set of the system of the system of the system of the system of the system. The set of the system of the system of the system of the system. The set of the system of the system of the system of the system. The system of the system. The system of the system

Charkov (harkof). See Kharkoff.

Charkov (har'kof). See Kharkoff. Charlemagne (shår-lê-mān'; Carolus Magnus, Charles the Great). King of the Franks, and sub-sequently Emperor of the West, was born in 742, probably at Aix-la-Chapelle. His father was Pepin the Short, King of the Franks, son of Charles Martel. On the decease of his father, in 768, he was crowned king, and divided the king-dom of the Franks with his younger brother Carloman, at whose death in 771 Charlemagne made himself master of the whole empire, which embraced, be-sides France, a large part of Germany. His first great enterprise was the con-quest of the Saxons, a heathen nation living between the Weser and the Elbe, which he undertook in 772; but it was not till 803 that they were finally sub-dued, and brought to embrace Chris-tianity. While he was combating the Saxons, Pope Adrian implored his assist-ance against Desiderius, King of the Lombards. Charlemagne immediately marched with his army to Italy, took Pavia, overthrew Desiderius, and was crowned King of Lombardy with the iron crown. In 778 he repaired to Spain to assist a Moorish prince, and while return-ing his troops were surprised in the

Charlemagne

valley of Roncesvalles by the Biscayans, and the rear-guard defeated; Roland, one of the most famous warriors of those times, fell in the battle. As his power increased, he meditated more seriously the accomplishment of the plan of his an-cestor, Charles Martel, to restore the Western Empire of Rome. Having gone to Italy to assist the pope, on Christmas-day 800 he was crowned and proclaimed Cæsar and Augustus by Leo III, the titles of the Roman emperors being thus rewestern Empire of Rome. Having gone to Italy to assist the pope, on Christmas-day 800 he was crowned and proclaimed Cæsar and Augustus by Leo III, the titles of the Roman emperors being thus re-stored. His son Pepin, who had been made King of Italy, died in 810, and his death was followed the next year by that of Charles, his eldest son. Thus of his legitimate sons one only remained, Louis, King of Aquitania, whom Charlemagne adopted as his colleague in 813. He died Jan. 28, 814, in the forty-seventh year of his reign, and was buried at Aix-la-Chapelle, his favorite and usual place of residence. Charlemagne was a friend of learning, and deserves the name of re-storer of the sciences and teacher of his people. He attracted by his liberality the most distinguished scholars to his court (among others, Alcuin, from England), and established an academy in his palace at Aix-la-Chapelle, the sittings of which he attended with all the scientific and literary men of his court. He invited teachers of language and mathematics from Italy to the principal cities of the empire, and founded scholars in the monas-teries. He strove to cultivate his mind by intercourse with scholars; and, to the time of his death, this intercourse re-mained his favorite recreation. His mother-tongue was a form of German, but he spoke several languages readily, especially the Latin, and was naturally eliturgy and church music, and attempted unsuccessfully to introduce uniformity of measures and weights. He built a light-house at Boulogne, constructed several ports, encouraged agriculture, and enacted wise laws. He convend councils and parliaments, published capitularies, wrote many letters (some of which are still extant), a grammar, and several Latin poems. His empire comprehended France, most of Catalonia, Navarre, and Aragon, the Netherlands, Germany as far as the Elitaly, Istria, and a part of Sclavonia. In private life Charlemagne was exceed-ingly amiable; a good father, and gen-erous friend. In dress and habits he was plain and eco Charleroi (sharl-rwä), a town of Hinaut, Belgium, on the Sambre and the Charleroi Canal, 31 miles

Sambre and the Charleroi Canal, 31 miles
s. of Brussels, in a coal and iron region.
Pop. (1919) 28,011.
Charleroi (shäri'le-roi'), a borough of Washington Co., Pa.,
23 miles s. E. of Pittsburgh on the Monongabela River and Pennsylvania R. R.
There are plate glass, lamp chimney, bottle and shovel factories. Pop. (1920)

pressed the revolt of the Parisians and s pressed the revolt of the Farisians and a rising of the peasants, kept the King of Navarre at bay, and deprived the Eng-lish of a great part of their dominion in France. He died in 1380. He erected the Bastille for the purpose of overawing the Parisians.

Samore and the Charterol Count of Large of the second and iron region (ability 19, a borough from the first of the purpose of overawing from the last of the purpose of overawing the second of the purpose of overawing the second of the partial and the grant of the purpose of overawing the second of the partial and the purpose of overawing the second of the partial and the purpose of overawing the part of the partial and the purpose of overawing the part of the partial and the purpose of overawing the part of the partial for the purpose of overawing the part of the partial for the purpose of overawing the part of the partial for the purpose of the partial for the part of the partial for the part of the partial for the partial for the part of the part

# Charles X

1570, which, two years later, on 24th August, 1572, was treacherously broken by the Messeare of St. Bartholomew. The king, who had been Ittle more than the tool of his scheming mother, died two years afterwards, in 1574. Charles X, King of France, Comte Gharles X, d'Artois, born at Ver-sailles in 1757, grandson of Louis XV, was the youngest son of the dauphin, and brother of Louis XVI. He left France in 1789, after the first popular insurrec-tion and destruction of the Bastille, and afterwards assuming the command of a body of emigrants, acted in concert with the Austrian and Prussian armies on the Rhine. Despairing of success, he retired the Austrian and Prussian armies on the Rhine. Despairing of success, he retired to Great Britain and resided for several years in the palace of Holyrood at Edinburgh. He entered France at the Restoration, and in 1824 succeeded his brother, Louis XVIII, as king. In a short time his reactionary policy brought him into conflict with the popular party, and in 1830 a revolution drove him from the throne. He died in 1836. His grandson, the Comte de Chambord (which see), claimed the French throne as his heir. heir.

Charles IV, Emperor of Germany, of the house of Luxemburg, was born 1316, and was the son of King the nouse of Luxemburg, was born 1316, and was the son of King John of Bohemia. In 1346 he was elected emperor by five of the electoral princes, while the actual emperor Louis the Bararian was still alive. On the death of the latter a part of the electors elected Count Gunther of Schwarzburg, who soon after died; and Charles at length won over his enemies, and was elected and consecrated emperor at Aix-la-Chapelle. In 1354 he went to Italy and was crowned King of Italy at Milan, and emperor at consecrated emperor at Aix-la-Chapelle. In 1354 he went to Italy and was crowned King of Italy at Milan, and emperor at Rome the year following. On his return to Germany in 1356 Charles issued his Golden Bull (which see) regulating the election of the German emperors. He died at Prague in 1378. Charles was art-ful, but vacillating, and careless of all interests but those of his own family and his hereditary kingdom of Bohemia. In Germany bands of robbers plundered the country, and the fiefs of the empire were alienated. In Italy Charles sold states and cities to the highest bidder, or if they themselves offered most, made them independent republics. But Bohemia flourished during his reign. He encour-aged trade, industry, and agriculture, made Prague a great city, and established there the first German university (1348). **Charles V**, Emperor of Germany and latter capacity he is called Charles I), the eldest son of Philip, Archduke of

Austria, and of Joanna, the daughter of Ferdinand and Isabella of Spain, was born at Ghent, Feb. 24, 1500. Charles was thus the grandson of the Emperor Maximilian and Mary, daughter of Charles the Bold, last Duke of Burgundy, and inherited from his grandmargnit on Charles the Bold, last Duke of Burgundy, and inherited from his grandparents on both sides the fairest countries in Europe, Aragon, Naples, Sicily, Sardinia, Castile, and the colonies in the New World, Austria, Burgundy, and the Netherlands. On the death of Ferdinand, his grand-father, Charles, assumed the title of King of Spain. In 1519 he was elected emperor, and was crowned at Aix-la-Cha-pelle with extraordinary splendor. The progress of the Reformation of Germany demanded the care of the new emperor, demanded the care of the new emperor, who held a diet at Worms. Luther, who appeared at this diet with a safe-conduct from Charles, defended his case with



#### Charles V of Germany

energy and boldness. The emperor kept silent; but after Luther's departure a severe edict appeared against him in the name of Charles, who thought it his interest to declare himself the defender of the Barry and Start and Star the Roman Church. A war with France, which the rival claims of Francis I in Italy, the Netherlands, and Navarre made inevitable, broke out in 1521. Neither side had a decided success till the battle of Pavia in 1525, where Francis was totally defauted and taken primer of Pavia in 1525, where Francis was totally defeated and taken prisoner. Charles treated his captive with respect, but with great rigor as regarded the conditions of his release. A league of Italian states, headed by Pope Clement VII, was now formed against the over-grown power of Charles; but their ill-directed efforts had no success. Rome itself was stormed and pillaged by the troops of the Constable of Bourbon, and the pope made prisoner. Nor was the alliance of Henry VIII of England with

### Charles **V**

# Charles VI

Charles VI Francis against the emperor any more successful, the war ending in a treaty (Cambray, 1529) of which the conditions were favorable to Charles. A war against the Turks by which Solyman was compelled to retreat, and an expedition against the Dey of Tunis by which 20, 000 Christian slaves were released, added to the influence of Charles, and acquired for him the reputation of a chivalrous defender of the faith. In 1337 he made truce with Francis, and soon after, while on his way to the Netherlands, spent six days at the court of the latter in Paris. In 1541 another expedition against the African Moors, by which Charles hoped to crown his reputation, was unsuccess-ful, and he lost a part of his fleet and army before Algiers without gaining any advantage. A new war with France arose regarding the territory of Milan. The quarrel was patched up by the peace of Crespy in 1545. The religious strife was again disturbing the emperor. Charles, who was no bigot, sought to reconcile the two parties, and with this view alternately courted and threatened the Protestants. At length in 1546 the Protestant princes declared war, but were driven from the field and compelled to submit. But the defection of his ally, Maurice of Saxony, whom Charles had in-vested with the electoral dignity, again turned the tide in favor of the Protes-tants. Maurice surprised the imperial camp at Innsbruck in the middle of a stormy night, and Charles with great difficulty escaped alone in a litter. The Protestants. It gave them equal rights with the Catholics, and was confirmed three years later by the diet of Augsburg (1555). Foiled in his schemes and de-jected with repeated failures, Charles resolved to resign the imperial dignity, and transfer his hereditary estates to him the sovereignty of the Netherlands, and jected with repeated failures, Charles resolved to resign the imperial dignity, and transfer his hereditary estates to his son Philip. In 1555 he conferred on him the sovereignty of the Netherlands, and on January 15, 1556, that of Spain, re-tiring himself to a residence beside the monastery of Yuste in Estremadura, where he amused himself by mechanical labors and the cultivation of a garden. He still took a strong interest in public affairs, though in his later years he was very much of an invalid, his ill health being partly caused by his gournandizing habits. He died on Sept. 21, 1558. **Charles VI**, German emperor, the peror Leopold I, was born Oct. 1, 1685. He was destined, according to the ordinary rules of inheritance, to succeed his relative Charles II on the throme of Spain. But Charles II by his will

made a French prince, Philip, Duke of Anjou, grandson of Louis XIV, heir to the Spanish monarchy. This occasioned the war of the Spanish Succession, in which England and Holland took the part of the Austrian claimant. Charles held possession of Madrid for a time, and was supported by the skill of Marlborough and Eugene, but he was eventually obliged to resign Spain to the French claimant, and content himself with the Spanish subject-lands, Milan, Mantua, Sardinia, and the Netherlands (Treaty of conscu to resign Spain to the French claimant, and content himself with the Spanish subject-lands, Milan, Mantua, Sardinia, and the Netherlands (Treaty of Utrecht, 1713, and Treaty of Rastadt, 1714). He became emperor in 1711. In a war against the Turks his armies, led by Eugene of Savoy, gained the decisive victories of Peterwardein and Belgrade. After the death of his only son, Charles directed all his policy and energies to secure the guarantee of the various powers to the Pragmatic Sanction, which settled the succession to the Austrian dominions on his daughter Maria Theresa. In 1733 a war with France and Spain regarding the succession in Poland ter-minated unfavorably for him, he having to surrender Sicily, Naples, and part of Milan to Spain, and Lorraine to France. In 1727 he renewed the war with the Turks, this time unsuccessfully. Charles died Oct. 20, 1740. Charles VII, horn in 1697 was the

died Oct. 20, 1740. Charles VII, born in 1697, was the son of Maximilian Emanuel, elector of Bavaria. In 1726 he succeeded his father as Elector of Bavaria. He was one of the princes who protested against the Pragmatic Sanction, and after the death of Charles VI (see above), in 1740, he refused to acknowledge Maria Theresa as heiress. In support of his own claims he invaded Austria with an army. took Prague, was crowned King of Bohemia, and in 1742 was elected emperor. But fortune soon deserted him. The armies of Maria Theresa reconquered ali Upper Austria, and overwhelmed Bavaria. Charles fied to Frankfort, and returning to Munich in 1744, died there the follow-ing year. ing year.

Charles I, King of England, Scot-ing year. Charles I, king of England, Scot-born at Dunfermline, Scotland, in the year 1600, and was the third son of James VI and Anne of Denmark. He married Henrietta Maria, daughter of Henry IV of France, and in 1625 suc-ceeded to the throne, receiving the king-dom embroiled in a Spanish war. The first parliament which he summoned, being more disposed to state grievances than grant supplies, was dissolved. Next year (1626) a new p. rliament was sum-moned; but the House proved no more

# **Charles** I

tractable than before, and was soon dissolved. In 1628 the king was obliged to eall a third parliament, which showed itself as much opposed to arbitrary measures as its profecessor, and after voting the supplies prepared the *Petition of* **Bigks**, which Charles was constrained to pass into a law. But the determined upirit with which the parliament resisted



the king's claim to levy tonnage and poundage on his own authority led to a rupture, and Charles again dissolved the parliament, resolving to try and reign without one. In this endeavor he was supported by Strafford and Laud as his chief counselors. With their help Charles continued eleven years without summoning a parliament, using the arbitrary courts of High Commission and Starchamber as a kind of cover for pure absolutism, and raising money by unconstitutional or doubtful means. In 1637 John Hampden began his career of resistance to the king's arbitrary measures by refusing to pay ship-money, the right to levy which, without authority of parliament, he was determined to bring before a court of law. His cause was argued for twelve days in the Court of Exchequer; and although he lost it by the decision of eight of the judges out of twelve, the discussion of the question produced a very powerful impression n the public mind. It was in Scotland, however, that formal warlike opposition was destined to commence. The attempts of Charles to introduce an Anglican liturgy into that country pr:duced violent tumults, and gave origin to the famous *Corenant* in 1638, to oppose the king's design. An English army was sent north, but was defeated by the army of the **Covenanters, and in 1640 a parliament** 

# Charles II

was again summoned, which proved to be the famous Long Parliament. An ac-count of the struggle between king and parliament, the trial and execution of Strafford and Laud, etc., cannot here be given, but the result was that both king and parliament made preparations for war. The king had on his side the great bulk of the gentry, while nearly all the Puritans and the inhabitants of the great trading towns sided with the parliament. The first action, the battle of Edgehill (23d Oct., 1642), gave the king a slight advantage; but nothing very decisive happened till the battle of Marston Moor, in 1644 where Cromwell routed the royal-ists. The loss of the battle of Naseby, idvantage; but nothing very decisive happened till the battle of Marston Moor, in 1644 where Cromwell routed the royal-ists. The loss of the battle of Naseby, the year following, completed the ruin of the king's cause. Charles at length gave himself up to the Scottish army at Newark (5th May, 1646). After some negotiations he was surrendered to the commissioners of the parliament. The extreme sect of the Independents, largely represented in the army and headed by Cromwell, now got the upper hand, and, coercing the parliament and the more hesitating of the Presbyterians, brought Charles to trial for high treason against the people, and had sentence of death pronounced against him. All interposi-tion being vain, he was beheaded before the Banqueting House. Whitehall, on 30th Jan. 1649, meeting his fate with great dignity and composure. Charles had many good qualities. Possessed of a highly-cultivated mind, with a fine judg-ment in arts and letters, he was also temperate, chaste, and religious, and, al-though somewhat cold in his demeanor, kind and affectionate. Nor was talent wanting to him. But these merits were counterbalanced and all but neutralized by a want of self-reliance and a habit of vacillation, which in his position had the effect of insincerity. Coupled with this was a temperament which would not brook control and tended to absolutism. **Charles I and** Henrietta Maria of France, was born in 1630. He was a refugee at The Hague on the death of his father, on which he immediately assumed the royal title. Cromwell was then all-powerful in England; but Charles ac-cepted an invitation from the Scots, who had proclaimed him their king July, 1650, and, passing over to Soctland, was powerful in England; but Charles ac-cepted an invitation from the Scots, who had proclaimed him their king July, 1650, and, passing over to Scotland, was crowned at Scone (1651). Cromwell's approach made him take refuge among the English royalists, who, having gathered an army, encountered Cromwoll at Worcester and were totally defented. With great difficulty Charles escaped

# Charles II

France. On the death of Cromwell the Restoration effected without a struggle by General Monk set Charles on the throne After the declaration of Breda, his entry into the capital (29th May, 1600) being made amidst universal acclamations. In 1642 he married the Infanta of Portugal, Catharine of Braganza, a prudent and virtuous princess, but in no way calcuvirtuous princess, but in no way calcu-lated to acquire the affection of a man like Charles. For a time his measures, mainly counseled by the chancellor, Lord Clarendon, were prudent and conciliatory. But the indolence, extravagance, and licentious habits of the king soon involved the nation as well as himself in dif-ficulties. Dunkirk was sold to the French to relieve his pecuniary embarrassment. ficulties. Dunkirk was sold to the French to relieve his pecuniary embarrassment, and war broke out with Holland. A Dutch fleet entered the Thames, and burned and destroyed ships as far up as Chatham. The great plague in 1665, and the great fire of London the year follow-ing, added to the disasters of the period. In 1667 Clarendon was dismissed, and a triple alliance between England, Holland, and Sweden, for the purpose of checking the ambition of Louis XIV, followed; but the extravagance of the king made him willing to become a mere pensioner of Louis XIV, with whom he arranged a private treaty against Holland in 1670. The Cabal ministry was by this time in The Cabal ministry was by this time in power, and they were quite ready to break the triple alliance and bring about a rupture with the Dutch. As the king did not choose to apply to parliament did not choose to apply to parliament for money to carry on the projected war, he caused the exchequer to be shut up in January, 1672, and by several other dis-graceful and arbitrary proceedings gave great disgust and alarm to the nation. The war ended in failure, and the Cabal ministry was dissolved in 1673. The year 1678 was distinguished by the pretended Popish plot of Titus Oates, which led to the exclusion of Roman Catholics from parliament. In 1679 the Habeas Corpus Act was passed, and the temper of the parliament was so much excited that the Act was passed, and the temper of the parliament, in 16th the tabeas Corpus Act was passed, and the temper of the parliament was so much excited that the king dissolved it. A new parliament which assembled in 1680 had to be dis-solved for a like reason, and yet another which met the year following at Oxford. Finally Charles, like his father, deter-mined to govern without a parliament, and after the suppression of the Rye House plot and the execution of Russell sud Sidney re-established an absolute rule. He died from the consequences of an apoplectic attack in February, 1685, after maving received the sacrament according to the rites of the Roman Church. Charles was a man of wit, and possessed an easy good nature, but was entirely

selfish, and indifferent to anything but his own pleasure. He had no patriotism, honor, or generosity, but was not destitute of the ability to rule. He had no legitimate children. His mistresses were numerous, and several of them were raised to the highest ranks of nobility, while six of his illegitimate sons were made dukes. Charles YIT King of Sweden were

while six of his illegitimate sons were made dukes. Charles XII, King of Sweden, was born at Stockholm, June 27, 1682. On the death of his father, in 1697, when he was but fifteen years old, he was declared of age by the estates. To his jealous neighbors this seemed a favorable time to humble the pride of Sweden. Frederick IV of Den-mark, Augustus II of Poland, and the Czar Peter I of Russia concluded an alliance which resulted in war against Sweden. With the aid of an English and Dutch squadron the Danes were soon made to sign peace, but Augustus of Saxony and Poland, and the czar were still in the field. Rapidly transporting 20,000 men to Livonia, Charles stormed the czar's and dispersing the rest (30th Nov., 1700). Crossing the Dwina he then attacked the Saxons and gained a decisive victory. Following up this advantage he won the battle of Clissau, drove Augustus from Poland, had the crown of that country conferred on Stanislaus Leczinsky, and dictated the conditions of peace at Altranstadt in Saxony in 1706. In Sepdictated the conditions of peace at Altranstadt in Saxony in 1706. In Sep-tember, 1707, the Swedes left Saxony to invade Russia, Charles taking the shortest invade Russia, Charles taking the shortest route to Moscow. At Smolensk he altered his plan, deviated to the Ukraine to gain the help of the Cossacks, and weakened his army very seriously by difficult marches through a district extremely cold and ill supplied with provisions. In this condition Peter marched upon him with 70,000 men, and defeated him com-pletely at Pultawa. Charles field with a with 70,000 men, and defeated him com-pletely at Pultawa. Charles fied with a small guard and found refuge and an honorable reception at Bender, in the Turkish territory. Here he managed to persuade the Porte to declare war against Russia. The armies met on the banks of the Pruth (July 1, 1711) and Peter seemed nearly ruined, when his wife, Catharine, succeeded in bribing the grand vizier, and procured a peace in which the interests of Charles were neglected. The attempts of Charles to rekindle a war were vain, and after having spent some years at Bender he was forced by the Turkish government to leave. Arrived in his own country in 1714, he set about the measures necessary to defend the kingmeasures necessary to defend the king-dom, and the fortunes of Sweden were beginning to assume a favorable aspect



# **Charles XIII**

when he was slain by a cannonball as he was busieging Frederikshall, Norway, Nov. 30, 1718. Firmness, valor, and love of justice were the great features in the character of Charles, with which were combined a remarkable military genius and a desire to emulate the career of Alexander the Great. But his rashness and obstinacy were such as to negative the effect of his high powers. After his death Sweden sank from the rank of a leading power. Voltaire's Life of Charles XII gives a picturesque account of his career. of his career

of his career. Charles XIII, King of Sweden, was Charles XIII, King of Sweden, was the second son of King Adolphus Fred-erick. In the war with Russia, in 1788, he received the command of the fleet, and defeated the Russians in the Gulf of Finland. After the murder of his brother, Gustavus III, in 1792, he was placed at the head of the regency, and rained universal esteem in that position. The revolution of 1809 placed him on the throne at a very critical period, but his prudent conduct procured the union of Sweden with Norway, Nov. 4, 1814. He adopted as his successor Marshal Berna-dotte, who became king on the death of Charles, Feb. 5, 1818. Charles XIV. See Bernadotte. Charles I, King of Spain. See

Charles I, King of Spain. See Charles V, Emperor of Germany.

**Charles IV**, King of Spain, born at **Charles IV**, Naples 12th Nov., 1784, succeeded his brother Ferdinand VI in 1788, was all his life completely under the influence of his wife and her paramour (jodoy. In 1808 Charles abdi-cated in favor of Napoleon, IIe died in 1819.

1819. Charles I, King of Roumania, was born in 1839, son of the German Prince Karl Anton of Hohenzol-lern-Sigmaringen. He was elected Prince of Roumania in 1860 and was crowned king in 1881, following the Russo-Turkish war. His wife, Elizabeth, daughter of Prince Herman of Wied, became a notable author under the pen name of Carmen Sylva. On the outbreak of the European war he maintained the neutrality of Rou-mania and kept in close touch with the Triple Alliance. He died on October 10, 1914, and was succeeded by his nephew, Prince Ferdinand of Hohenzollern-Sigma-ringen, in default of direct heirs. Charles, Son of the Emperor Leopold II. was born in Florence 5th Sept., 1771. commander-in-chief of the Austrian army on the Rhine, he won several victories.

# **Charles Edward Stuart**

against the French. In 1805 he com-manded in Italy against Masséna, and won Caldiero (31st Oct.); but in the campaign of 1809 in Germany against Napoleon he was unsuccessful, the battlo of Wagram (5th and 6th July) laying Austria at the feet of the French em-peror. With that event the military career of Charles closed. He died in 1847. He published several military works of value.

1847. He published several military works of value. Charles Albert, King of Sardinia, born 1798, was the son of Charles Emmanuel, Prince of Savoy-Carignan. In 1831 he succeeded to the throne on the death of Charles Felix, but his government at first greatly disappointed the liberal party by its despoit tendencies. It was not till near 1848 that, seeing the growing strength of the progressive and national movement in Italy, he took up the position of its champion. As such he took the field ngainst Austria on behalf of the Lom-bardo-Venetian provinces, but was crush-ingly defeated at Novara. 23d March, 1849. He abdicated in favor of his son, Victor Emmanuel, and, retiring to Portugal, died 28th July, 1849. Charles Augustus, Saxe-Weimar, born in 1757; died in 1828. He suc-ceeded to the dukedom in 1775, and be-cause of his lasting friendship with Goethe, gathered around him a coterie of literary people, which made his court famous. He was one of the few rulers at that time with democratic impulses. Charles City, a city, county seat of

Charles City, a city, county seat of Floyd Co., Iowa, on the Cedar River. Manufactures include furniture, traction engines, etc. Charles City College (incorporated 1891) is lo-cated here. Pop. 7350.

Charles City Cross Boads, a in Virginia, 12 miles s. r. of Richmond, made famous by a battle in the Civil war between the Confederates under Long-street and Hill, and the Federals under McClollan, June 30, 1862.

**Charles Edward Stuart**, called the *Pre-tender*, grandson of James II. King of England, son of James Ellward and Clem-entina, daughter of Prince Sobieski, was born in 1720 at Rome. In 1742 he went to Paris and persuaded Louis XV to assist him in an attempt to recover the throne of his ancestors. Fifteen thou-sand men were on the point of sailing from Dunkirk, when the English admiral Norris dispersed the whole fleet. Charles now determined to trust to his own exer-tions. Accompanied by seven officers he landed on the west coast of Scotland, Charles Edward Stuart, called the Prefrom a small ship called the Doutelle. Many Lowland nobles and Highland chiefs went over to his party. With a small army thus formed he marched for ward, captured Pe. h, then Edinburgh (Sept. 17, 1745), defeated an army of 4000 British under Sir John Cope at Prestonpans (Sept. 22), and advancing obtained possession of Carlisle. He now caused his father to be proclaimed King and himself Regent of England; removed his headquarters to Manchester, and soon found himself within 100 miles of London, where many of his friends awaited his arrival. The rapid successes of the adventurer now caused a part of the British forces in Germany to be re-called. Want of support, disunion, and jealousy among the adherents of the house of Stuart, some errors, and the superior called. Want of support, disunion, and jealousy among the adherents of the house of Stuart, some errors, and the superior force opposed to him, compelled Prince Charles to retire in the beginning of 1746. The victory at Falkirk (Jan. 28, 1746) was his last. As a final attempt he risked the battle of Culloden against the Duke of Cumberland, April 16, 1746, in which his army was defeated and entirely dispersed. The prince now wandered about for a long time through the wilds of Scotland, often without food, and the price of £30,000 sterling was set upon his head. At length, on Sept. 20, 1746, five months after the defeat of Culloden, he escaped in a French frigate. He received a pension of 20,000 livres yearly from France, and of 12,000 doubloons from Spain. Forced to leave France by the terms of the Peace of Aix-la-Chapelle (1748), he went to Italy, and in 1772 married a princess of Stolberg-Gedern, from whom eight years later he was separated. (See Albany.) In the end he fell into habits of intoxication, died Jan. 31, 1788, and was buried at Frascati. The funeral service was performed by his only surviving brother, the Cardinal of York, with whose death in 1807 the Stuart line ended. The cardinal received a pension from Britain of £4000 a year till his death. a pension from Britain of £4000 a year till his death.

Charles Martel', ruler of the Franks, was a son **Charles marter**, Franks, was a son of Pepin Héristal. His father had gov-erned as mayor of the palace under the weak Frankish kings with so much justice that he was enabled to make his office he-reditary in his family. Chilperic II, king of the Franks, refusing to acknowledge Charles Martel as mayor of the palace, the latter deposed him, and set Clothaire IV in his place. After the death of Clothaire he restored Chilperic, and sub-sequently placed Thierri on the throne. Charles Martel rendered his rule famous by the great victory which he gained in

October, 732, over the Saracens, near Tours, from which he acquired the name of *Martel*, signifying *hammer*. He died 741. Charlemagne was his grandson. See *Charlemagne*. 141. Charlemagne was his grandson. See Charlemagne. Charles the Bold, Duke of Bur-gundy, son of Phillp the Good and Isabella of Portugal, born at Dijon Nov. 10, 1433. While his father yet lived Charles left Burgundy, and forming an alliance with some of the great French nobles for the purpose of preserving the power of the feudal nobility, he marched on Paris with 20,000 men, defeated Louis XI at Montlhéri, and won the counties of Boulogne, Guines, and Ponthieu. Succeeding his father in 1467, he commenced his reign by severe repression of the citizens of Liège and Ghent. In 1468 he married Margaret of York, sister of Edward IV of England. Liège having rebelled, the duke stormed and sacked the town. In 1470 the war with France was renewed, and although the duke was forced to sue for a truce he soom took up arms anew, and, crossing the Somme, stormed and fired the city of Nesle. Louis meanwhile involved him the Somme, stormed and fired the city of Nesle. Louis meanwhile involved him Nesle. Louis meanwhile involved him in greater embarrassments by exciting against him Austria and the Swiss. Charles, ever ready to take up a quarrel, threw himself on Germany with char-acteristic fury, and lost ten months in a futile siege of Neuss. He was success-ful, however, in conquering Lorraine from Duke René. Charles now turned his arms against the Swiss, took the city of Granson, putting 800 men to the sword. But this cruelty was speedily avenged by the descent of a Swiss army, which at the first shock routed the duke's forces at Granson, March 3, 1476. Mad avenged by the descent of a Swiss army, which at the first shock routed the duke's forces at Granson, March 3, 1476. Mad with rage and shame Charles gathered an-other army, invaded Switzerland, and was again defeated with great loss at Morat. The Swiss, led by the Duke of Lorraine, now undertook the reconquest of Lorraine, and obtained possession of Nancy. Charles marched to recover it, but was utterly routed and himself slain. The house of Burgundy ended in him, and his death without male heirs removed the greatest of those independent feudal lords whose power stood in the way of the growth of the French monarchy. His daughter Mary married Maximilian of Germany, but most of his French territory passed into the hands of the French king. Charles the Great. See Charle-

See Charles the Great. Charlemagne.

Charles River, a short river in Massachusetts, which flows into Boston harbor, separating Bos-ton from Charlestown. It affords motive



# **Charles's Wain**

**prover for many factories and is navigable is a few miles above Boston. Charles's Wain.** See Bear, Great. **Charleston** (Charis'tum), a city and seaport of South Caro-of the State. It was incorporated in 1794, chartered as a city in 1870. It is **Charleston** (Charis'tum), a city and seaport of South Caro-of the center of large coal and gas fields. Other industries include gun forging and high explosives, steel plants, iron foun-high explosives, steel plants, iron foun-the Libbey-Owens factory), lamp chim-neys, chemicals, fire brick, terra cotta and defend by several forts. The city ber, salt brine, etc. Pop. (1910) 22,996; in regularly laid out, most of the principal for a space of the principal (1920) 39,608. **UBARIES'S Wall.** See Bear, Great. **Charleston** (Charls'tun), a city and seaport of South Caro-lina, on a tonue of land formed by the confinence of the rivers Cooper and Ash-by, which unite just below the city, and form a spacious and convenient harbor retending about 7 miles to the Atlantic, and defended by several forts. The city is regularly laid out, most of the principal thoroughfares being f0 to 70 feet wide and hordered with fine shade-trees. It has become the metropolis of the Caro-linas, and is one of the leading commercial cities and seaports in the south. Its insti-



tutions are numerous, including the Charleston Library, founded in 1743, the College of Charleston, 1785, and the Orphan House, 1794, one of the oldest in-stitutions of its kind in the country; and the Charleston Museum, the oldest in America. The staple exports are cotton, rice, lumber, and phosphate, as well as manufactured goods from the Midwest. It also has important manufacturing indus-

#### Charlotte-Amalie

(1920) 39,608. (1920) 39,608. Charleston, a city, county seat of Charleston, Coles Co., Illinois, 45 miles w. of Terre Haute. It has flour mills and various manufactures. Oll, coal and gas are found in the region. It is the seat of the Eastern Illinois Normal School. Pop. (1920) 6615. Charlestown, a former city of Mid-mills of the Baster O., Massachu-setts, incorporated with Boston (q. v.) in 1874. Scene of the Battle of Bunker Hill (q. v.), June 17, 1775. There is a U. S. Navy Yard here. Charleville (sharl-vel'), a town of Ardennes, on the Meuse, opposite Mexieres. It has a large trade in coal, iron, wine, etc. Pop. 22,654. Charlock. See Musiard.

Charlock. See Mustard.

**Charlotte** (shår'lot), a city, county seat of Mecklenburg Co., North Carolina. It is the center of the cotton mill industry of the South, with over 700 textile mills and 170 cotton cil mills within a radius of 150 miles. It has over 160 widely diversified manufacturing and industrial elemeteristic caronal mark over 160 widely diversified manufacturing and industrial plants with an annual pay-roll of over \$10,000,000. Textile mill machinery and equipment are among its important products. It is the Southern market for dyestuffs, and is a large dis-tributing point for automobiles. Center of extensive hydro-electric development. It is the home of Queens College for Women and other colleges. Here was signed the first Declaration of Independ-ence, May 20, 1775, by the colonists of Mecklenburg Co. Pop. (1910) 34,014; (1920) 46,338. ence, May 20, Mecklenburg C (1920) 46,338.

(1920) 46.338. Charlotte, a city, county seat or miles s.w. of Lansing on the Grand Trunk and Michigan Central Railroads. It has manufactures of automobiles, fur-niture, farm implements, etc. Pop. 5126. Charlotte-Amalie, [shär-lot'à-ma'-[eš], a town The island of St. Thomas, Virgin Ismanufactured goods from the Midwest. It miles s.w. of Lansing on the Grand also has important manufacturing indus-tries and is a military and naval center. It has manufactures of automobiles, fur-thas a navy yard and a naval center. It has manufactures of automobiles, fur-ment, with provision for 5000 recruits. It was the scene of the outbreak of the Civil war, April 12, 1861, and was evacu-ated by the Confederacy February 7, 1865. Pop. (1910) 58,833: (1920) 67,957. Charleston, a civ. capital of West Virginia, at the confluCharlottenburg (shår-lot'en-burk), a town of Prussia, on the Spree, about 3 miles from Berlin, with a royal palace and park, many beautiful villas and handsome monuments, also important industrial and manufacturing establishments, especially of electrical appliances. Pop. 305,978. Charlottesville (shårlots-vil), a city of Virginia, 97 miles w. N. W. of Richmond. It is the

miles w. N. w. of Richmond. It is the weat of the University of Virginia, founded by Thomas Jefferson, and near by is Monticello, Jefferson's home. It has flour mills, railroad shops, woolen and silk mills, etc., and is in a rich farming and fruit-growing district. Pop. 10,688.

**Charlottetown**, a town of British North America, cap-ital of Prince Edward Island, on Hills-borough Bay, 110 miles N. of Hali-fax. It contains handsome public build-ings and churches, is advantageously situated for commerce, and its harbor ings and churches, is advantage situated for commerce, and its 1 is one of the best in North America. (1911) 11,198. Pop.

**Charm**, anything believed to possess some occult or supernatural power, such as an amulet. spell, etc., but properly applied (as the name, derived from Lat. carmen a song, indicates) to spells couched in formulas of words or verses.

Char'nel-house, a chamber or build-churches where the bones of the dead are deposited.

deposited. **Charon** (kā'ron), in Greek mythology, the son of Erebus and Night. It was his office to ferry the dead in his crazy boat over the rivers of the infernal regions, for which office he received an obolus, or farthing, which accordingly was usually put into the mouth of the deceased. He was represented as an old man with a gloomy aspect, matted beard, and tattered garments. **Charpie** (shār'pē), lint for dressing wounds. **Charpie** (shār'pē), in the East In-

**Chart, a** hydrographical or marine jection of some part of the earth's sur-face, with the coasts, islands, rocks, banks, channels, or entrances into harbors, rivers, and bays, the points of compass, soundings, or depth of water, etc., to regulate the courses of ships in their voyages. The term *chart* is applied to a marine map: *map* is applied to a draught of some portion of land (often including sea also). And *plane chart* is one in which the meridians are supposed parallel to each other, the parallels of latitude at to each other, the parallels of latitude at equal distances, and of course the degrees of latitude and longitude everywhere equal to each other. A great number of excellent charts are produced by the hydrographic department of the British admiralty and are sold at a low rate. The United States Coast Survey Depart-The United States Coast Survey Depart-ment produces similar charts. See Map. Charter (charter). a written instru-ment, excepted with usual forms, given as evidence of a grant, con-tract, or other important transaction be-tween man and man. Royal charters are such as are granted by sovereigns to con-vey certain rights and privileges to their subjects, such as the Great Charter, granted by King John (see Magna Charta), and charters granted by various sovereigns to boroughs and municipal constant, and charters granted by various sovereigns to boroughs and municipal bodies, to universities and colleges, or to colonies and foreign possessions; some-what similar to which are charters granted by the state or legislature to banks and other companies or associa-tions, etc.

thous, etc. **Charterhouse**, the English name for a religious house of the Carthusian order (from the French Maison Chartreuse). The Charterhouse, in London, now a famous school, was crazy boat over the rivers of the infernal regions, for which office he received an obolus, or farthing, which accordingly was usually put into the mouth of the deceased. He was represented as an old man with a gloomy aspect, matted beard, and tattered garments. Charpie (shar'pë), lint for dressing wounds. Charpoy (shar'pë), in the East In-dies, a small portable bed, consisting of a wooden frame resting on four legs, with bands across to support the bedding. Charras (char'ras), a resnous sub-stance which exudes from the Indian hemp and is collected for use as a interable article of trade in Asia.



# Charter-party

**Charter-party** is a contract execut-and the master or owner of a ship con-taining the terms upon which the ship is hired to freight. The masters and owners usually bind themselves that the goods shall be delivered (dangers of the excepted) in good condition. The charterer is bound to furnish the cargo at the place of lading and to take de-livery at the port of discharge within specified periods called lay days. **Chartier** (shär-tyä), ALAIN, a French poet and morallst, born, it is supposed, at Bayeux about 1386; died in 1449. His contemporarles considered him the father of French eloquence. His poems are often graceful and nervous, and his vizorous prose con-tains many fine thoughts and prudent maxims.

maxims.

**Chartism** (chart'ism), CHARTISTS, name for a political move-ment and its supporters that formerly caused great excitement in Britain. The reform bill passed in 1832 gave political enfranchisement to the middle classes, but to the large hole, of the working classes entranchisement to the middle classes, but to the large body of the working classes it brought, primarily at least, no addi-tional advantages, and this circumstance was turned to account by many dema-gogues, who urged on the people the idea that they had been betrayed by the middle classes and their interests sacri-ficed. A period of commercial depression and a succession of bad harvests brought and a succession of bad harvests brought discontent to a head in the Chartist move-ment. It was founded on the general idea that the evils under which the people were laboring were due to the misconduct of government and a defective political representation. In 1838 the famous 'Charter,' or 'People's Charter,' was pre-pared by a committee of six members of uarlianuent and six working men. It compared by a committee of six members of parliament and six working men. It com-prised six heads, namely:—1. Universal suffrage, or the right of voting for every male of twenty-one years of age. 2. Equal electoral districts. 3. Vote by ballot. 4. Annual parliaments. 5. No other qualification to be necessary for members of parliament than the choice of the electors. 6. Members of parliament to be paid for their services. Immense meetings were now held throughout the country, and popular excitement mounted to the highest pitch. Physical force was advocated as the only means for obtaining satisfaction. In June, 1839, after the

tradition, Captain Wadsworth, in 1687, refusal of the House of Commons to con-hid the charter of the Colony of Connec-sider a monster petition in favor of the tieut in the hollow of this oak tree, when Charter, serious riots took place. In Governor Andros came from Boston to 1848 the French revolution of February demand its surrender. sider a monster petition in favor of the Charter, serious riots took place. In 1848 the French revolution of February stirred all the revolutionary elements in Europe, and a great demonstration on the part of the Chartists was organized. But the preparations taken by the govern-But the preparations taken by the govern-ment for defense prevented outbreaks of any consequence, and Chartism then grad-ually declined. Some of the demands of the Charter have been adopted by the Liberal party and made into law; while the more advanced section of Chartism has been absorbed by Socialistic and republican movements. Chartrag (shärtr), a city of France.

republican movements. Chartres (shärtr), a city of France. capital of the department Eure et-Loire, 49 miles s.w. of Paris. It is a very ancient city; a large number of the houses are built of wood and plaster, and have their gables toward the street. The cathedral, one of the most



The Cathedral, Chartres.

magnificent in Europe, is rendered conthe height on which the city stands, Manufactures: woolen, hosiery, hats, earthenware, and leather; there is a con-

#### Chartres

siderable trade. This town was long siderable trade. This town was long held by the English, from whom it was taken by Dunois in 1432, Henry IV was crowned here in 1594. Pop. 19,433. Chartreuse (shur-treuz), or GREAT CHARTREUSE, a famous

Carthusian monastery in Southeastern France, a little northeast of Grenoble, situated at the foot of high mountains, 32×0 feet above sea-level, the headquarters of the order of the Carthusians. It was founded in 1084, but the present building, a huge, plain-looking pile, dates from 1676. The monks of this monastery, ex-pelled in 1903 and since then settled in Spain, manufacture the well-known liquor called *Chartteuse*.

called Chartreuse. Chartulary (char'tū-lar-i), a record chartulary (char'tū-lar-i), a record charters, title-deeds, etc., of any corpora-tion were copied for safety and con-venience of reference. They were often kept by private families. Charybdis (ka-rib'dis), an eddy or whirlpool in the Straits of Messina, celebrated in ancient times, and resarded as the more dangerous to

of Messina, celebrated in ancient times, and regarded as the more dangerous to avigators because in endeavoring to escape it they ran the risk of being wrecked upon Scylla, a rock opposite. Chase (chās), (1) in printing, an iron frame used to confine types when set in columns or pages. (2) The part of a gun between the trunnions and the swell of the muzzle, or in modern guns, in which the muzzle has no swell, the whole of that part of a gun which is in front of the trunnions. Chase, or CHACE, an open piece of or game, and belonging to a private proprietor. It differs from a forest, which is not private property and is in-vested with privileges, and from a park, which is enclosed. Chase, and being to a private man between the trunch of the section of the trunch of the trunch

vested with privileges, and from a park, which is enclosed. Chase, SALMON POBTLAND, statesman and jurist, born in New Hamp-shire, in 1808. Having adopted the law as his profession, he settled at Cincinnati and acquired a practise there. He early showed himself an opponent of slavery, and was the means of founding the Free-soil party, which in time gave rise to the great Republican party—the power that brought the downfall of slavery. In 1849-55 he was a nember of the United States Senate, in which he vigorously opposed the extension of slavery into the new territories. In 1855 he was elected governor of Ohio, being re-elected in 1857. In 1860 he was an unsuccessful candidate for the presidency. In 1861 he was appointed secretary of the treasury in Lincoln's cabinet and in this post was signally successful in providing funds for

carrying on the Civil war. In 1864 he resigned office, and was appointed chief-justice of the supreme court. He died in 873.

respined once, and was appointed chief-justice of the supreme court. He died in 1873. Chase, WILLIAM MERRIT, en Ameri-Indiana, November 1, 1849. He went to Munich in 1872, joining the group of American students afterward known as Munich secessionists, who etablished the Society of American Artists in New York. He soon became noted for his brilliant paintings, especially his portraits and figure pieces. He was also active as an instructor and lecturer. He was elected a member of the National Academy, 1890. Chasidim (has'i-dëm), or PHETHETS, the name of a Jewish sect which appeared in the eighteenth century. Its adherents are strongly inclined to mysticism, depreciate the Uld Testament and its ordinances, believe in extraordi-nary cures, etc. They are most numerous in Russian Poland, Roumania, and some parts of Galicia and Hungary, and are regarded with great antipathy by the orthodox Jews. Chasidim is also the Maccabees, and with being the parent stock of the Pharisees. Chasing is the art of working deco-poussé work, in which the figures are punched out from behind and are then sculptured on the front or chased with the graver. Chassepot Rifle (shas-po), a breech-loading rifle, named efter its inventor and edoutd as the

the graver. Chassepot Rifle (shås-pö), a breech-loading rifle, named after its inventor, and adopted as the firearm of the French infantry in 1886, but since given up. It was about 4 lba. lighter than the needle-gun and about 1 lb. lighter than the Martini-Henry rifle. Chasseurs (shås-ewr; a French word signifying 'hunt-ers'), a name given to various sec-tions of light infantry and cavalry in the French service.

tions of light infantry and cavalry in the French service. Chastelard (shåt-lår), PIEBED B BOSCOBEL DE, a young Frenchman, celel-ated for his infatu-ated passion for Mary, Queen of Scota, was born 1540 in Dauphiné. He was of good family, handsome, with a turn for verse-making. I'e fell madly in love with Mary Stuart at the court of Francis II, followed her to Scotland, and twice in-vaded the royal bedchamber while Mary was being undressed by her maids. He was tried publicly at St. Andrews and hanged (1563), the queen resisting all



# Chasuble

appeals for pardon. She is said to have encouraged his passion more than was consistent with prodence. Chasuble (chasubl), the upper gar-during the celebration of mass. It was originally circular, had a hole in the middle for the head, but no holes for the arms. In later times the sides were



A. Ancient form of Chasuble : 1, Apparel of the Beck. 2, 2, 2, Chasuble. 3, 3, Orphreys of the chasuble. 4, The stole. 5, 5, The alb. 6, Ap-parel of the alb. 7, The maniple.
 B. Modern form of Chasuble.

cut away to give a freer motion to the arms, and it has now become an oblong

arms, and it has now become an oblong garment hanging down before and be-hind, made of rich materials, as silk, velvet, cloth of gold, and has a cross embroidered on the back. Chat (chat), the popular name of birds of the genus Sazicola, family Sylviadæ or warblers. They are small, lively birds, moving incessantly and rapidly about in pursuit of the in-sects on which they chiefly live. There are three species found in Britain, the stone-chat, whin-chat, and wheatear. The yellow-breasted chat of the United States is a larger bird, belonging to the genus *lcteria* (*l. polyglotta*), family Turdidæ or thrushes. renus Icteria (I. Turdidæ or thrushes

**Château** (shā-tō), the French term for a castle or mansion in tor a castle or mansion in the country; a country-seat.—Château en Espagne, literally, a castle in Spain; figuratively a castle in the air, an imag-inary palace: a phrase of doubtful origin.

# Chäteaudun

Malo, in Brittany, of a noble family, September 14, 1768. After serving in the navy and the army he traveled in North America; but the news of the flight of Louis XVI and his arrest at Varennes brought him back to France. Shortly after he quitted France and joined with other emigrants the Prussian army on the Rhine. After being wounded at the siege of Thionrille and suffering many miseries, he made his way to London, where, friendless and penniless, he was just able to earn a subsistence by giving lessons in French and doing translations. Here he pub-lished in 1797 his *Essai Historique*, which met with but small success. At this time the death of his mother and the accounts of her last moments trans-mitted to him by his sister helped to effect a certain change in the religious opinions of Châteaubriand, and from a not very profound skeptic he became a not very profound believer. In 1800 he effect a certain change in the religious opinions of Châteaubriand, and from a not very profound skeptic he became a not very profound skeptic he became a not very profound believer. In 1800 he returned to France, and in the following year published his romance of Atala, the scene of which is laid in America, and the year after his celebrated work, Le Génie du Christianime, which is a kind of brilliant picture of Christianity in an æsthetic and romantic aspect. Style, power of description, and eloquence are the merits of the book rather than any depth of thought; but it carried the author's reputation far and wide, and contributed much to the religious reac-tion of the time. After a short career as diplomatist under Napoleon, Château-briand made a tour in the East (1806-7), visiting Greece, Asia Minor, and the Holy Land. As the fruit of his travels he published Les Martyrs (1809) and linéraire de Paris à Jérucalem (1811). He hailed the restoration of Louis XVIII with eathusiasm, was appointed ambassador to Berlin, and then to Lon-don, but in 1824 quarreled with the premier, M. de Villèle, and was sum-marily dismissed. On the revolution of 1830 he refused to take the oath of alle-giance to Louis Philippe, forfeiting thus a pension of 12,000 francs. At this time his writings were chiefly political, and mostly appeared as newspaper arti-cles, pamphlets, etc. In his later years he wrote several works, but none of the value of his earlier productions. He died 4th July, 1848, leaving memoirs (Mé-moires d'outre Tombe) which contain severe judgments on contemporary men and things. Châteaudun (shi-tô-dun), a to wa and things.

Châteaubriand (shă-tō-bri-ăp), FRANÇOIS AU-GUSTE, VICOMTE DE, a celebrated French et-Loire, 26 miles S. S. W. of Chartrea, author and politician, was born at St. near the Loire. The old castle of the

counts of Pop. 7296. of Dunois overlooks the town.

can Division made local advances, the 9th and 23d Infantry taking the town of Vaux, and the marines finally clearing up

Chatteauroux
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 (shi-to-ro), a town of business of the second 23d infantry taking the town of Yaux, and the marines finally clearing up Bepartment of Lafer. Pop. 25(10).
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 (shi-to-royanov of the second paratment of Lafer. Pop. 27(7).
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# Chatham Islands

born Nov. 15, 1708, and educated at Eton and Oxford. He entered parliament as member for the borough of Old Sarum (which was the property of his family), and soon attracted notice as a powerful opponent of Walpole. In spite of the king's dislike Pitt was powerful enough to win a place in the administration (1746), first as vice-treasurer of Ireland, and atterwards as paymacer-general. In 1756 he became secretary of state and (1746), first as vice-treasurer of Ireland, and afterwards as paymaster-general. In 1756 he became secretary of state and real head of the government. Dismissed in 1757 on account of his opposition to the king's Hanoverian policy, no stable administration could be formed without him, and he returned to power the same year in conjunction with the Duke of Newcastle. It was under this adminis-tration and entirely under the adminis-tration and entirely under the adminis-tration of Pitt that Britain rose to a place among the nations she had not before occupied. Wolfe and Clive, both stimu-lated and supported in their great de-signs by Pitt, won Canada and India from the French and the support the Great Commoner gave Frederick of Prussia contributed not a little to the destruction of French predominance in Europe. The accession of George III brought Lord Bute into power, and Pitt, disagreeing with Bute, resigned in 1761. In 1766 he strongly advocated concilia-tory measures towards the American colonies, and undertook the same year to form an administration, he going to the colonies, and undertook the same year to form an administration, he going to the House of Lords as Earl of Chatham. But the ministry was not a success, and in 176S he resigned. After this his principal work was his appeals for a conciliatory policy towards the colonies. But his advice was disregarded, and the colonies. But his advice was disregarded, and the colonies declared themselves independent in 1776. Chatham died May 11, 1778. in 1776. Chatham died May 11, 1778. He received a public funeral and a mag-nificent monument in Westminster Ab-bey. The character of Chatham was marked by integrity, disinterestedness, and patriotism. With great oratorical gifts and the insight of a great statesman he had liberal and elevated sentiments; but he was haughty and showed too marked a consciousness of his own su-periority. periority.

periority. Chatham Islands, a group of three South Pacific Ocean, belonging to New Zealand. The largest, or Chatham Is-land, lat. (8. point) 44° 7' 8.; long. 176° 40° W., about 350 miles E. from New Zealand, and is about 38 miles long and 25 broad. Pitt Island is much smaller, and Rangatira is an in-significant patch. A considerable por-tion of Chatham Island is occupied by a salt lagoon. The soil is in many

places fertile, and crops of potatoes, wheat, and vegetables are successfully grown. Cattle and sheep are reared, and thus whaling or other vessels that call are supplied with fresh provisiors as well as with water. The original in-habitants, called Morioris, differed con siderably from the Maoris, by whom and a mixed race they have been supplanted. The present population amounts to only 420. The islands were discovered in 1791. 1791.

**Chati** (chā'tē), a species of small leopard found in South Amer-ica, very destructive to small quadrupeds and birds, and especially to poultry-yards, but so gentle, when domesticated, as to have gained for itself the name of *Felis mitis*, or gentle leopard.

as to nave gained for itself the name of Felis mitis, or gentle leopard. Châtillon-sur-Seine (shā-tē-yõp-sür-sen), a town of France, department of Côte d'Or, 45 miles N.W. of Dijon, on the Seine. It is chiefly notable for the con-gress of the allied powers and France held here in 1814. Pop. 4430. Chat Moss, an extensive morass, area about 6000 to 7000 acres, situate chiefly in the parish of Eccles, Lancashire. It is remarkable as being the scene of operations for re-claiming bog-lands, at first successfully carried out on a large scale at the end of the eighteenth and beginning of the nineteenth century ;—also for offering one more field of triumph to George Stephen-son, who in 1829 carried the Liverpool and Manchester Railway over it after all other engineers had declared the feat impossible. impossible.

impossible. Chatoyant (sha-toi'ant), a term applied to gems that have, when cut and polished, a change-able, undulating luster like that of a cat's eye in the dark. Châtre (shä-tr), LA, an old town of France dep. Indre, 21 miles s. E. of Châteauroux, right bank of the Indre. Pop. about 5000. Chatsworth (chats'worth), an es-tate of the Dukes of Devonshire, in Derbyshire, purchased in the reign of Elizabeth by William Cav-endish, who began the building of a hall which served as one of the prisons of endish, who began the building of a hall which served as one of the prisons of Marv, Queen of Scots. The present building was nearly completed by the first Duke of Devonshire between 1687 and 1706, the north wing being added by the sixth duke. It forms a square, with an inner court, and is remarkable for the collections of pictures and statues it contains. The facade is 720 feet long, or with the terraces 1200 feet. The park is about 11 miles in circumference, dj-

Chatsworth

# Chattahoochee

versined by hill and dale. The conserva-tory covers nearly an acre, and was de-algred by Paxton, forming on a small scale the forerunner of the exhibition building of 1851.

building of 1601. Chattahoochee (chat-a-hö'chē), a river of the **Chattahoochee** (chata-hö'chë), a river of the United States, rising in the Appalachian Mountains in Georgia, and forming for a considerable distance the boundary be-tween Georgia and Alabama. In its lower course, after the junction of the Flint River, it is named the Appalachi-cola, and is navigable to Columbus in Georgia for steamboats. Total course, about 550 miles. about 550 miles.

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Lookout Mountain, Chickamauga and Mis-sionary Ridge. Pop. (1910) 44,604; (1920) 57,895. Chattels (chat'els), property mov-able and immovable, not being freehold. The word chattel is orig-inally the same work with cattle, formed from late Latin capitalia, meaning heads of cattle, from 1. caput, head. Chattels are divided into real and per-sonal. Chattels rcal are such as belong not to the person immediately, but de-pendent upon something, as an interest in a land or tenement, or a lease, or an interest in advowsons. Chattels personal are goods which belong immediately to the person of the owner.

**Chatterers** (chat'er-ers), the popu-lar name of certain in-sessorial birds of the family Ampelidæ, genus Ampélis), as the Bohemian chat-terer or waxwing (Ampélis garrúla) and the chatterer of Carolina (A. cedrorum).

cedrórum). Chatterton (chaťer-ton), THOMAS, a youth whose genius and melancholy fate have gained him much celebrity, was born at Bristol in 1752, of poor parents, and educated at the charity school. He exhibited great precocity, became extremely devoted to reading, and was especially fond of old writings and documents. At the age of He was the son of a vintner named

fourteen he was apprenticed to an at-torney. In 1768, when the new bridge at Bristol was completed, he inserted a paper in the Bristol Journal entitled A Description of the Friars' First Passing over the Old Bridge, which he pretended he had found along with other old manu-scripts in an old chest in St. Mary Red-cliffe Church, Bristol. He also showed his friends several poems of similarly spurious antiquity which he attributed to one Rowley. In 1769 he ventured to write to Horace Walpole, then engaged upon his Anecdotes of Painters, giving him an account of a number of old Bris-tol painters which was clever enough to deceive Walpole for a time. Dismissed from the attorney's office, he left with his manuscripts for London, where a favorable reception from the booksellers gave him high hopes. For them he wrote favorable reception from the booksellers gave him high hopes. For them he wrote numerous pamphlets, satires, letters, etc., but got no substantial return, and his situation became daily more desper-ate. At last, after having been several days without food, he poisoned himself, 25th August, 1770. The most remarkable of his poems are those published under the name of Rowley, spurious antiques, such as The Tragedy of Ælla, The Battle of Hastings, The Bristow Tragedy, etc. etc.

Chatterton's Compound, a mix-ture of Stockholm tar, resin, and gutta percha. used in the construction of submarine telegraph cables, etc. Chaucer (cha'sér), GEOFFBEY, 'the father of English poetry,' born in London probably about 1340 and not in 1328 the date formerly given

and not in 1328, the date formerly given



# Chancer

John Chaucer. Nothing is known of his education, but in 1256-59 he was a page to Princess Lionel. He tells us inneal that in 1256 he bore arms in France and was taken prisoner. He was ransomed next year, the king pay-ing fife towards the necessary sum. In 1367 we find his name as a valet of the king's chamber. Whether he married his wife Philippa in 1366 or not till 1374, and who she was, we do not know for certain. In 1367 he received a pen-sion of twenty marks, and between 1370 and 1380 he was employed abroad in seven diplomatic missions. In one of these, in 1372, he was sent to Genoa as seven diplomatic missions. In one of these, in 1372, he was sent to Genoa as a commissioner to negotiate a commerthese, in 1372, he was sent to Genoa as a commissioner to negotiate a commer-ciai treaty. It is probable that he visited the Italian poet Petrarch on this occa-sion. In 1374 he was appointed comp-troller of the customs on wool at Lon-don, a lucrative post, and he also re-ceived an annual allowance. In 1377 he was sent to Flanders and France on diplomatic business, and next year to Lombardy. In 1382 he was appointed comptroller of the petty customs. In 1386 he was returned to parliament as hight of the shire for Kent, but in the same year he shared the disgrace of his patron, John of Gaunt, was dismissed from his comptrollership, and reduced to a state of comparative poverty. Three years later, however, he was made clerk of the works at 2s. a day, and after-wards had other offices and one or two. annuities bestowed upon him, but in 1394-98 he must have been quite poor. wards had other offices and one or two. annuities bestowed upon him, but in 1394-98 he must have been quite poor. In 1399 he got a pension of forty marks from Henry IV, but did not live long to enjoy it. His most celebrated work, The Canterbury Tales, was written at different periods between 1373 and 1400. It consists of a series of tales in verse (two in prose), supposed to be told by a company of pilgrims to the shrine of St. Thomas (Becket) at Canterbury in 1386. In its pages we get such pictures of English life and English ways of thought in the 14th century as are found nowhere else, while it displays poetical skill and taste of a high grade. Besides this brilliant production Chaucer wrote many poems (and others are falsely at-tributed to him): The Book of the Duchess (1369), The Parliament of Fouls (1374), Troilus and Cressida (1385), The House of Fame (1386), etc., some of which are founded on French or Italian works. He also trans-lated Bothius, and wrote a treatise on the Astrolabe (1391) for his son Lewis (who probably died early). He was baried in Westminster Abbey.

Chauci (cha'sē), an ancient Teutor ic tribe dwelling E. of the Frisians, between the Ems and Elbe on the shore of the German Ocean.

Tristans, between the Emis and The out the shore of the German Ocean. Chaudes-Aigues (shod-āg), a vil-lage of France, department of Cantal, 28 miles E. S. E. of Aurillac, with thermal springs so copious that the water is used for warm-ing the town in winter and for washing fleeces. Pop. (commune) 1558. Chaudet (shodā), ANTOINE DENIS, Baris in 1763; died there in 1810. His first work was a bas-relief under the per-istyle of the Pantheon, representing the love of glory, an excellent work, the very simplicity and grandeur of which pre-vented it being justly estimated by the false taste of the age. In the museums of the Luxembourg and Trianon are sev-eral of Chaudet's finest works: La Sem-sibilité, the beautiful statue of Cypa-rissa, etc. rissa, etc.

rissa, etc. **Chaudière** (shōd-yār), a river of Canada, Quebec prov-ince, which rises on the borders of Maine, near the sources of the Kennebec, and flows into the St. Lawrence about 6 miles above Quebec. The banks of the river are generally steen and rocky and miles above Quedec. Into Damas of the river are generally steep and rocky, and about three miles above its junction with river are generally steep and rocky, and about three miles above its junction with the St. Lawrence are the Chaudière Falls, about 120 feet high. On the Ottawa river are other two falls of lesser dimensions known as the Great and the Little Chaudière.

Little Chaudière. **Chauffeur**  $(sh\tilde{v}-f\hat{e}r;$  French for stoker or fireman), the driver operating an automobile and the mechanic carried to look after its ma-chinery and fuel, these being usually combined in one person. See Automo-bile

bile. Chaulmugra (shal'mū-gra), a tree (Gynocardia o d or d-ta) of S. Asia, from the seeds of which an oil is obtained that has long been known and highly valued in India and China as a remedy in skin diseases and complaints arising from blood impurities, and has been introduced into wester. countries in the treatment both of skin and chest diseases.

and chest diseases. Chaumont (shō-mon), a town of France, capital of the department of Haute-Marne, on a height between the Marne and the Suize, with manufactures in woolens, hosiery, etc. Here the allies (Great Britain, Russia, Austria, and Prussia) signed the treaty of alliance against Napoleon, March 1, 1814. Pop. 12,089. Charmon tells (charmon tel') a dep

Chaumontelle (shō-mon-tel'), a de-licious dessert pear

Chaumonteria

Laon. It was the scene of much fighting during the European war. It was cap-tured by the Germans in the first drive on Paris in August, 1914, retaken by the Allies in 1917, and fell again into German hands in March, 1918. It had extensive cotton mills, bleaching grounds and tan-neries, and manufactures of sacking, soda, sulphuric and nitric acids. Pop. (1914) 10,127.

**Chausses** (shôs), the tight covering for the legs and body, reaching to the waist, formerly worn by men of nearly all classes throughout Europe. They resembled tight panta-loons with feet to them. The name chausses de mailles was given to defen-sive armor worn on the same parts of the body. the body.

Chautauqua (cha-ta'kwa), a beau-tiful lake in New York, 18 miles long and 1-3 broad, 726 a beau-726 York, 18 miles long and 1-3 broad, 726 feet above Lake Erie, from which it is 8 m. distant. On its banks is the vil-lage of Chautauqua, the center of a religious and educational movement of some interest. This originated in 1874, when the village was selected as a sum-mer place of meeting for all interested in Sunday schools and missions. Since then the Chautauqua Literary and Scien-tific Circle has taken origin here the then the Chautauqua Literary and Scien-tific Circle has taken origin here, the most prominent feature of which is to engage the members—wherever they may reside—in a regular and systematic course of reading, extending, when com-pleted over four years and entitling the student to a diploma. There are many weak browchen we acceltion

preted over four years and entitling the student to a diploma. There are many local branches or societies. Chauvinism (shô'vin-izm), an un-reflecting and fanati-reflecting and fanati-exaggerated patriotism, so called from Nicholas Chaurin, a soldier so enthusi-astically devoted to Napoleon I and so demonstrative in his adoration that his comrades turned him into ridicule. Chaux-de-Fonds (shôd-fôn), LA, a Chaux-de-Fonds (shôd-fôn), LA, a fue town of Neufchâtel, in a deep valley of the Jura. The inhabitants are largely engaged in the making of watches and clocks, of which Chaux-de-Fonds and Locle are the chief centers in Switzer-land, and in similar branches of indus-try. Pop. 36,388. Chavica (chavi-ka), a genus of

**Chavica** (chavi-ka), a genus of plants, nat. order Pipera-ceae, including the common long pepper, Java long pepper, and betel-pepper.

which is much grown in Jersey, Guernsey, Chay-root (shā), the roots of a and the south of England. Chauny (shố'nẽ), a town of France. India, the Oldenlandia umbellata, growing dep. Aisne, 22 miles w. of spontaneously on dry, sandy ground near Laon. It was the scene of much fighting the sea; and extensively cultivated during the European war. It was too India, the Olderlandia umbellata, growing spontaneously on dry, sandy ground near the sea; and extensively cultivated, chiefly on the Coromandel coast. It yields a red dye used in coloring chintz. **Cheboygan** (shě-bol'gan), a city, county seat of Cheboy-gan Co., Michigan, on Lake Huron. It has worr and pulp mills tanneries can-

gan Co., Michigan, on Lake Huron. It has paper and pulp mills, tanneries, can-neries, and manufactures of wood prod-ucts, boilers, cigars, flour, etc., with ex-tensive lumber and farm interests. Pop. (1920) 5642.

Check. See Cheque.

Checkers (chek'ers), the common name in the United States for the game of draughts (which see).

Checkmate (chek'mat). See Chess.

CHECKMALE (chek'måt). See Chess. Cheddar (ched'ar), a parish and thriving village. England, County Somerset, 18 miles s. w. Bristol. The dairies in the neighborhood have long been famous for the excellence of their cheese, which is made from the whole milk, and the whey skimmed off, heated, and added to the curd. Cheduba (che-dö'ba), an island in the Bay of Bengal, belong-ing to Burmah, about 25 miles off the coast of Arracan; length and breadth, each about 15 miles; area, nearly 250 square miles; pop. about 25,000. The soil is fertile and produces tobacco, rice indigo, pepper, etc. Petroleum is also found. Cheace (ches)

indigo, pepper, etc. Petroleum is also found. Cheese (chēs), one of the important products of the dairy, is com-posed principally of casein, which exists in cows' milk to the extent of about 3 or 4 per cent. fat, and water. It is made from milk, skimmed wholly, par-tially, or not at all, the milk being curdled or coagulated, and the watery portion or whey separated from the in-soluble curd, which being then worked into a uniform mass, salted (as a rule), and pressed into a vat or mold forms cheese, but requires to be curcd or rig-ened for a time before being used. The coagulation of the milk may be effected either by adding an acid as in Holland, or sour milk as in Switzerland, or ren-net as usual in Britain and America. There are a great many varieties of cheese, of which the most notable are Stilton. Cheshire, Cheddar, Dunlop, amongst British; and Parmesan, Gruy-Pre. Gorgonzola, Gouda, Roquefort, Linburg, etc., amongst European ones. Limburg, etc., amongst European ones, (See different articles.) In America immense quantities of cheese are made,

# Cheesefly

almost all the different European kinds abled to creep over mud and sand when being imitated. Large factories are there left dry by the receding tide, and also devoted to the manufacture. Other to take short leaps like a frog, whence kinds are known as sour-milk, skimmed- the name frogfish, as well as handfish. milk, cream, sweet-milk, etc., cheese. They are found in the estuaries of the Sheep's and goats' milk cheese are also northeast of Australia.—The same name is given to a Burelia.

Checsefly, a small, black, dipterous sums, in which the hinder hands which the housefly, blowfly, etc., be-long. It has a very extensible ovinceiter long. It has a very extensible ovipositor which it can sink to a great depth in the cracks of cheese, and lay its eggs there. The magot, well known as the cheesehopper, is furnished with two horny, claw-shaped mandibles, which it uses both for digging into the cheese and for moving itself, having no feet. Its leaps are performed by a jerk, first bring-ing itself into a circular attitude, when it can project itself twenty to thirty times its own length. Cheesehopper, Son Cheesefu

Cheesehopper. See Cheesefy.

Cheese-rennet, a popular name of bedstraw. of

Cheetah. Same as Chetah.

**Che-Foo** (chě fõ), a town of China tung, one of the last ports opened to foreign trade, which is now of consider-able volume. Pop. about 35,000. **Cheilognethe** (kl-log'na-tha), one

Cheilognatha (ki-log na-tha), one of the two orders of Myriapoda, including the millipedes and other forms.

Cheilopoda (kI-lop'o-da), one of the two orders of Myriapoda, represented by the centipedes in which a pair of mandibles two pairs off maxillipeds or foot-jaws and a lower lip are developed are developed.

Cheiranthus (kI-ran'thus), the wall-flower genus of plants. Cheirolepis (kI-rol'e-pis), a genus of fossil ganoid fishes found in the Old Red Sandatone of Orkney and Morayshire, characterized by the great development of the pectoral and ventral fins.

Cheiroptera (kI-rop't-e-ra), BATS, an order mammals, the essential character of which is the possession of a patagium, or expansion of the integument of the



body which con-nects the tail taii its th to throughout length whole the hinder limbs as far as the ankle, and Skeleton and Wing-Mem-branes of Noctule Bat.

ly elongated, and give support and varied movement to the expansion (which is pop-ularly called the wing) by means of the very long and slender digits. Other mamularly called the wing, by accurate very long and slender digits. Other mam-mals, as some of the squirrels and the flying lemur, have the power of gliding through the air for some distance, but none of them has the power of sustained flight, nor are the anterior extra mities modified in the same way as are those of the bats. The Cheiroptera are divided into two sub-orders, Frugioora, or Fruit-eaters, and Insectivora, or Insect-eaters. (See Bat.)

Cheirotherium (ki-rö-thē'ri-um), name given to great unknown animal that formed the larger footsteps upon the slabs of the Trias, or upper, New Red Sandstone, and which bear a resemblance to the human hand. It is

**Cheirolepis** (if-fore-pis), a genus lines, of upper index for bolished to be iden-found in the Old Red Sandstone of human hand. It is supposed to be iden-Orkney and Morayshire, characterized by tical with the labyrinthodon. the great development of the pectoral and ventral fins. **Cheiromancy** (ki'ro-man-si), or in 1514; educated at St. John's College, PALMISTRY, the art and made regius professor of Greek. of divining by inspection of the lines of In 1544 he was appointed tutor to the fu-the hand; it was practised in India in ture Edward VI, and he became secretary the remotest ages; in Europe, during the of state in 1503, and was also privy-coun-middle ages, it was in great repute, but cillor. On the king's death he supported latterly it took refuge among the gypsies. Lady Jane Grey, and was conmitted to **Cheironectes** (k1-ro-ne k't és), a the Tower. After a few months, however, genus of acanthop- he was set at liberty and settled at terygious fishes, having the pectoral fins Strasburg; but his connection with the supported, like short feet, upon pedun-English Protestant church gave offense cles by means of which they are en- to the Catholics and, and his estates were

# Cheke

confiscated. He supported himself by teaching Greek, but in 1556, having been induced to visit Brussels, he was arrested by order of Philip II and sent prisoner to England. Under threat of the stake he recanted, and received the equivalent of his forfeited estates; but he felt so keenly his degradation that he died of grief in 1557. His chief distinction was the impulse given by him to the study of Greek. Greek.

**Cheekiang** (che-ke-àng'). a maritime province of China, be-tween lat. 27° and 31° N, and in-cluding the Chusan Archipelago; area, 36,700 sq. miles; pop. about 18,000,000. It is traversed by several rivers, and has as its principal ports Ningpo and Hang-chow, the capital. Staple exports, silk and tea. and tea

Chelmsford (chemz'ford), a county town of Essex, England, in a valley between the Chelmer and Cann, with several handsome public build-ings. There are manufactories of agricul-tural implements, electrical appliances, etc. Pop. 21,500.

Chelmsford, a town of Middlesex miles s.w. of Lowell, in a farming and fruit-growing district, with manufactures of woolens and worsteds, etc. Pop. (1920) 5682.

or woolens and worsteds, etc. Pop. (1920) 5682. Chelmsford, SIR FREDERICK THESI-GER, LORD, an eminent English lawyer, born in London in 1794; died in 1878; entered parliament in 1840; was solicitor-general and attorney-gen-eral under Sir Robert Peel, was ap-pointed lord chancellor of England in 1858 and made Lord Chelmsford; was ap-pointed lord chancellor again in 1866.— His son, the second Lord Chelmsford (FREDERICK AUGUSTUS THESIGER), born in 1827; died in 1905; was educated at Eton, and served in the Crimea and through the Indian mutiny. As deputy adjutant-general he served in the Abys-sinian campaign, was nominated C.B., made aide-de-camp to her Majesty, and adjutant-general to the forces in India (1868-76), and in 1877 was appointed commander of the forces and lieutenant-governor of Cape Colony. He restored Kaffraria to tranquillity, and was given the chief command in the Zulu war of 1879. After great difficulties with the transport, and some disasters, he gained the decisive victory of Ulundi, before the arrival of Sir Garnet Wolsseley, who had been sent to supersede him. On his return to England he was made G.C.B., died in 1878; entered parliament in 1840; was solicitor-general and attorney-gen-eral under Sir Robert Peel, was ap-pointed lord chancellor of England in 1858 and made Lord Chelmsford; was ap-pointed lord chancellor again in 1866.— His son, the second Lord Chelmsford (FREDERICK AUGUSTUS THESIGER), born in 1827; died in 1905; was educated at through the Indian mutiny. As deputy adjutant-general he served in the Crimea and through the Indian mutiny. As deputy adjutant-general to the forces in India (1868-76), and in 1877 was appointed commander of the forces and lieutenant-governor of Cape Colony. He restored the chief command in the Zulu war of the set to supersede him. On his return to England he was made G.C.B., and in 1884 became Lieutenant of the transport. And some disasters, he gained the decisive victory of Ulundi, before the arrival of Sir Garnet Wolseley, who had been sent to supersede him. On his return to England he was made G.C.B., and in 1884 became Lieutenant of the trower. Promoted lieutenant-general in

1882 and general in 1888, he was placed on the retired list in 1893. **Chelonians** (ke-lô'ni-ans), or CHE-LONIA, an order of rep-tiles including the tortoises and turtles, and distinguished by the body being in-closed in a double shell, out of which the head, tail, and four legs protrude. The order is divided into five families: the Chelididæ, or frog-tortoises; Testu-dinidæ, or land-tortoises; Emydæ, the terrapins or fresh-water tortoises; Tri-onychidæ, the mud-turtles or soft-tor-tolses; Chelonidæ, or sea-turtles. See onychidæ, the mud-turtles or so tolses; Chelonidæ, or sea-turtles. See Tortoise, Turtle.

Tortoise, Turtle. Chelsea (chel'sē), a suburb of London, and a parliamentary borough, on the Thames, opposite Battersea, and chiefly distinguished for containing a royal military hospital, originally com-menced by James I as a theological college, but converted by Charles II into an asylum for the reception of sick, maimed, and superannuated soldiers. The building was finished in 1692 by Sir Christopher Wren. Connected with the hospital is a royal military asylum, founded in 1801, for the education and maintenance of soldiers' children. Pop. 66,404. 66.404.

**Chelsea**, a city of Massachusetts, forming a N.E. suburb of Boston. (See Boston.) Pop. 43,184. **Cheltenham** (chel'(n.am), a munic-ipal and parliamentary borough and fashionable watering-place in England, in the county of Gloucester. on the small river Chelt, within the shel-ter of the Cotsweld Hills. The town has fine sources, crescents, terraces, sardens



Statistics and of Paracelus continued to be predominant until the time of Robert Boyle (1624-1601), who stated that all mannate objects but also in the best of the second mark of the second mark of the second mark of the second mark of the second half of the second half of the great of the second half of the second

Chemistry

Antimony	27.1       3b     120.2       39.9       3a     74.96       3a     137.87       3i     208.0       3     10.9       3r     79.92       Cd     112.40
Chlorine       Chromium         Cobalt       Co         Columhium       Co         Copper       Co         Dysprosium       I         Europium       I         Fluorine       I         Gadolinium       C         Gallium       C	Ca       132.81         Cl       35.46         Cr       52.0         Co       58.97         Cb       93.1         Cu       63.57         Dy       162.5         Ci       152.0         F       167.7         Cu       152.0         F       19.0         Gd       157.3         Ga       70.1         Ga       73.5

## Chemistry

<b>a</b>	~
Glucinum	Gl 9.1
Gold	Au 197.2
Helium	
Holmium	Ho 163.5
Hydrogen	H 1.008
Indium	In 114.8
Iodine	I 126.92
Iridium	Ir 198.1
Iron	Fe 55.84
Krypton	Kr 82.92
Lanthanum	La 139.0
Lead	Pb 207.20
Lithium	
Lutecium	Lu 175.0
Magnesium	Mg 24.32
	Mn 54.93
Manganese	
Mercury	Hg 200.6
Molybdenum	Mo 96.0
	Nd 144.3
Neodymium	
Neon	Ne 20.2
Nickel	Ni 58.68
Niton	Nt 222.4
Nitrogen	N 14.008
Osmium	Os 190.9
Oxygen	0 16.00
Palladium	Pd 106.7
Phosphorous	P 31.04
Platinum	Pt 195.2
Potaasium.	
Praseodymium	Pr 140.9
Radium	Ra 226.0
Rhodium	Rh 102.9
	Ru 102.9
Rubidium	Rb 85.45
Ruthenium	Ru 101.7
Samarium	Sa 150.4
	Sc 45.1
Scandium	
Selenium	Se 79.2
Silicon	Si 28.3
Silver	Ag 107.88
Sodium	Na 23.00
Strontium	Sr 87.63
Sulphur	8 32.06
<b>Tellurium</b>	Te 127.5
Terbium	ТЪ 159.2
Thalliun	TI 204.0
Thorium	Th 232.15
Thulium	Tm 168.5
Tin	Sn 118.7
<u>T</u> itanium	Ti 48.1
Tungsten	W 184.0
Uranium.	U 238.2
Vanadium	
Xenon	Xe 130.2
Ytterbium	Yb 173.5
	Yt 89.33
Yttrium	
Zine	Zn 65.37
Zirconium	Zr 90.6

Zirconium.......Zr 90.6 Symbols and Occurrence of the Elements.—The symbols for the elements known to the ancients and to the alchemists, were derived from the Latin word for the element by combining the first letter of the Latin word with another letter of the same word. Thus the symbol for iron, Fe, came from the Latin word ferrum; Pb, the symbol for lead, similarly was derived from plumbum. The symbols of the elements discovered in more recent times almost invariably owe their origin to the first letter and sometimes one other letter of the English word for the element. The names of the elements themselves come from many different sources.

The names of the elements known to the ancients are veiled in the obscurity of centuries; the more recently discovered elements frequently take their names from some striking property of the element. Oxygen, for example, means acid-forming, while chromium is an adaptation of the Greek word colored. Other elements are named after the locality in which they were first found, such as yttria. A few elements are named after mythological characters, as vanadium and thorium. Of the eighty-three elements known only eight are found in the earth's crust in relatively large amounts. Oxygen is by far the most common; it constitutes almost one-half of the earth's crust. By weight one-fifth of the air is oxygen, and oxygen constitutes about 89 per cent by weight of water. Next to oxygen in the order of their relative amounts found in the earth's crust are silicon, aluminum, iron, calcium, potassium, sodium, and magnesium. All the other elements are found in amounts which are expressed in fractions of a per cent of the total material present. *Valency and Laws of Combination.*— The elements are divided into two classes, the metals and the non-metals. Metals form what chemists call bases, while nonmetals are acid-forming. Both groups of elements enter into salts. Dalton early formulated the laws according to which these two classes of the elements entered into chemical combination; the proportion by weight of the combining elements is al-

Valency and Laws of Combination.— The elements are divided into two classes, the metals and the non-metals. Metals form what chemists call bases, while nonmetals are acid-forming. Both groups of elements enter into salts. Dalton early formulated the laws according to which these two classes of the elements entered into chemical combination; the proportion by weight of the combining elements is always unvarying in the same compound, and if two elements formed a series of compounds the combining proportions are simple multiples of the lowest ratio. To illustrate the last law we have 32 parts by weight of sulphur combining with 32 parts by weight of oxygen to form sulphur dioxide; but in another compound of sulphur and oxygen, 32 parts of the former unite with 48 parts of the latter. Thus the ratio of the oxygen in its two sulphur dof the compound itself. Chemistry as an exact science is based upon these laws of combination. The joining of atoms to form molecules is attributed to what is called chemical affinity. The degree of chemical affinity varies widely with the atoms of the different elements: oxygen combines with all of the elements except fluorine and the inert gases of the atmosphere, while the latter combine with no elements whatsoever. A list of the inert gases is in group 'O' of Mendeleeff's table below. Furthermore, the number of atoms worth which a given atom may combine sometimes varies. The combining power

of the atom is called its valency. Hydro-ren is one of the elements which has the least chemical combining power, and to it therefore is assigned the valency one. The combining value for hydrogen or its equiv-alent is the standard unit of valency. Oxygen always has a valency of two and aluminum of three, but nitrogen may have a valency of one, two, three, four, or five. Formulas...-To represent molecules of ments forming the molecules are written in juxtaposition. Symbols written in this way constitute a formula. Thus to repre-sent water we have H<sub>2</sub>O. This formula indicates that two atoms of hydrogen unite with one atom of oxygen to form one molecule of water. The formula for sul-phuric acid is H<sub>2</sub>SO<sub>4</sub>, from which, by ref-erence to the table of atomic weights its actual molecular weight may be calcu-lated; for not only do the atoms in the formula indicate the composition of the molecule but the weight of the molecule as well, which latter is found by taking the sum of the atomic weights. In the case of sulphuric acid the molecular weight is equal to 2 for hydrogen plus 32 for the sulphur, plus  $4 \times 16$ , or 64, for the oxy-gen, the sum of which is 98. For water the molecular weight is 2 + 16, or 18. Certain groups of atoms are frequently as-sociated; they are not casily decomposed, and they act together in chemical changes in the same manner as an atom. Such a and they act together in chemical changes in the same manner as an atom. Such a group is called a radical. The SO, group in sulphuric acid is an example of a rad-ical. These radicals can exist only in chemical combination; they cannot be iso-leved lated.

lated. Classes of Chemical Compounds.—Four classes of chemical compounds take part in chemical changes: acids, bases, and salts, all of which will conduct an electric current when dissolved in water. A fourth group is made up largely of or-ganic or carbon compounds, and these will not conduct electricity. Acids invariably contain hydrogen and a non-metal. In water, acids turn a plant product called litmus red. The hydrogen of the acid pro-duces this color change. A base is a com-pound made up of a metal and the radical OH. The latter will impart a blue color to litmus when the base is dissolved in water. A salt is the result of the action of an acid upon a base and contains both a metal and a non-metal.

Chemistry

by dro and to the end of the word are added the letters 'ic.' The compound represented by the formula HCl is called hydrochloric acid. The salts derived from his acid have the termination 'ide.' Thus salts containing a metal and a non-metal only have the same termination ; Na,O is sodium oxide, Na,S is sodium sulphide. When the same termination is they are the valency of the non-metal varies. The ordinary of the non-metal varies. The ordinary of the non-metal varies is they are the non-metal varies. The ordinary is they are the same termination is they are the non-metal varies. The ordinary of the non-metal varies is they are the non-metal varies. The ordinary is they are the non-metal varies is they are the non-metal varies. The ordinary is the non-metal varies is they are the non-metal varies. The ordinary is the non-metal varies is the order of the vort of the non-metal in the acid. Accordingly, HCl is given the name choire acid with a best or a group, such as HClO, there would be added the letters 'ous ; it would be called hypochlorous acid. To the acid forous acid. In the same manner HClO is order atoms of orgen is given the name choire acid softmary because a sulphur, phose or and nitrogen. By treating east which for the above choire acid, softm chore as the formed. From HClO, perchloroate are formed. From HClO, hypochlorous acid. To the salt are formed. From HClO, hypochlorous acid, there is domine softmary by the salt are fore acid, softm chore to represent the softer acid, softm chore to represent for the reactions. More the reactions. Of the organic reactions. In order to represent or internal rearrangement of the atoms of internal rearrangement of the atom

pound made up of a metal and the radical employed. The formulas of the elements OH. The latter will impart a blue color or compounds acting upon each other are to litmus when the base is dissolved in placed upon the left side of an equality water. A salt is the result of the action mark or an arrow, and upon the right side of an acid upon a base and contains both a metal and a non-metal. Nomeclature.—In naming bases the the action of hydrochloric acid upon metal is first mentioned and then the OH sodium hydroxide is represented in the radical, which latter is called the hydrox-following manner: HCl + NaOH = ide group. Thus the compound NaOH is NaCl + H<sub>2</sub>O. This indicates that one containing only one non-metal combined contact with one molecular weight of with hydrogen there is prefixed to the root sodium hydroxide will form one molecular of the word for the non-metal the term

## Chemistry

molecular weight of water. This is an example of the type of reaction known as double decomposition because both of the compounds used are broken up and con-verted into entirely different substances. This is an to inform the state of the second se

therefore called this the law of octaves. As shown in the table each main group is subdivided into two parts, A and B. Li, Na, K, Rb, and Cs are somewhat more closely associated in chemical characteris-tics theory. Age and Au closely associated in chemical characteris-tics than Cu, Ag, and Au, Adjoining groups as I and II more nearly resemble each other than those widely separated. Group I is made up entirely of metals while group II is composed of strong non-metals. The blanks in the table in-dicate the places of elements which will probably be discovered eventually. The table possesses shortcomings such as the irregular groupings of the elements of the eighth column, the reversed positions of nickel and cobalt and of tellurium and iodine; the lack of a place for hydrogen.

Туре	of Chlorides	RCI	RCh	RC1.	RCL	RCla—RCla	RCla	RCI	
Тур	e of Oxides	RaO	RO	RaOs	RaOs	RaOs-RaOs	ROz-RzOs	R:O7	ReOs
Beries	Group O	A Group I B	Group II A B	Group III A B	Group IV A B	Group V A B	Group VI A B	Group VII A B	
1	He = 4	Li=7	Gl=9	B=11	C=12	N = 14	0=16	F = 19 1	
2	Nr = 20	Na = 23	Mg = 24	Al = 27	Si - 28	P=31	8=32	Cl=35.5	
3	A = 40	K <b>- 3</b> 9	Ca = 40	Sc = 44	Ti = 48	V = 51	Cr = 52	Mn = 55	Fe = 55.8 Co = 58.97 Ni = 58.68
4		Cu = 63.5	Zn = 65	Ga = 70	Ge=73	As=75	Se = 79	Br = 80	
5	Kr = 83	Rb=85.5	Sr = 87.6	Yt = 89	Zr = 90.6	Сь-93	Mo <b>=96</b>		Ru = 101. Rh = 103 Pd = 106.
6		Ag = 107.9	Cd = 112	In=115	Sn = 119	Sb=120	Te=127.5	I = 125.9	
7	X = 130	Cs = 132.8	Ba = 137	La to Lu 139 to 174	Ce = 140	<b>Ta</b> = 181	W = 184		Os = 191 Ir = 193 Pt = 195
8		Au = 197	Hg = 200	Tl = 204	Pb=207	Bi = 208			
9	Nt = 222		Ra = 226		Th = 232	U=238.5			

Mendeleeff observed that when the ele-ments were arranged in the order of the magnitude of their atomic weights, groups of them were formed by taking all which were separated by six elements. The ele-ments in these groups possessed very similar chemical and physical properties. Thus beginning with lithium, Li, in the above table there follow six other elements. above table, there follow six other elements, glucinum, boron, carbon, nitrogen, oxygen, and fluorine. We then have sodium, Na, which has almost identical properties with lithium. Similarly in the same group, group Leach member in the order of atomic weights is separated by six other elements. Counting as one the element chosen. Men-deleeff stated that the eighth element repeated the properties of the first; he

All these defects of Mendeleeff's table are climinated in a table published by Moseley in 1914, which he called a table of atomic numbers. The weights for the various elements in this table were obtained by measuring the wave lengths of the rays which each element emitted when used as the anode of an X-ray bulb. Branches of Chemistry.—The study and application of chemistry may be divided roughly into four fields: inorganic com-pounds; organic, physical and industrial. Inorganic chemistry embraces the reac-tions of all the elements except carbon. The essential principles of inorganic chem-istry have been mentioned in the foregoing sketch. The study of the compounds of

carbon, of which there are many thou-sands, constitutes organic chemistry. In 1828 Woehler synthesized urea from an inorganic compound. Prior to that time it was believed that organic substances could be formed only in an animal or plant organism. In 1856 Sir William Perkin prepared mauve, the first artificial dye. A few years later Pasteur proved that orygen was essential in fermentation and decomposition of organic substances. Or-ganic compounds are divided into two groups, allphatic, or fatty, and aromatic. The former is represented by such sub-stances as alcohol, ether, and chloroform, the latter by benzene and coal tar dyes. A very important development of or-

the latter by benzene and coal tar dyes. A very important development of or-ganic chemistry, now, in fact, a distinct branch of chemistry, is physiological or, as sometimes called, biological chemistry. Physiological chemistry is in general con-cerned with what is called metabolism. It treats of the nutritive value of foods and the effect of the digestive fluids upon the latter. The scientific practice of in-ternal medicine is fundamentally a prob-lem of physiological chemistry. Closely associated with physiological chemistry, but also involved in the manufacture of such inorganic materials as rubber, glass, and clay products, is colloidal chemistry. A colloid is a substance which will not pass through a membranous tissue. Prac-tically all animal and vegetable fluids are colloidal or colloids. Physical chemistry is a study of the fundamental causes un-derlying operative and the second press through a memoranous tissue. Prac-tically all animal and vegetable fluids are colloidal or colloids. Physical chemistry is a study of the fundamental causes un-derlying chemical activity. It is con-eerned with the rate of chemical reactions, the electrical conductivity of chemical so-lutions and the amount of heat absorbed or emitted in the course of a chemical re-action. By means of the chemical laws developed through physical chemistry it became possible to obtain nitric acid and ammonia from the free nitrogen of the air. Both of these substances are essential in the manufacture of smokeless powder and of fertilizers. Chemical principles under-lie the steel and iron industry, the manu-facture of dyes, the preparation of medi-cines, and the refining of gold and silver from their ores. Chemical Warfare.—The first use of

from their ores. Chemical Warfare.—The first use of toxic gases in the World war was on April 22, 1915, when the Germans em-ployed it in an attack against the French and British lines on the Ypres salient. In June, 1918, the United States organ-ised the Chemical Welfare Service. The poison gases used in the war were of various kinds. That first used was chlorine; afterward came the mustard gas, properly dichlorethyl sulphide. Other common gases were phosgene and white phosphorus. Against most of these gases, masks offered a reasonable protection.

Chemulpo

Chemnitz (hem'nits), the principal manufacturing town in on the Chemnitz, Chemnitz (hem'nits), the principal manufacturing town in Saxony, Germany, on the Chemnitz, 39 miles southwest of Dresden. It is well built, and has a castle, a lyceum, town-hall, school of design, etc. The principal manufactures are white and printed calicoes, ginghams, handkerchiefs, woolen and half-woolen goods, etc. There are also extensive cotton-spinning mills, and mills for the spinning of combed wool and floss-silk; dye-works, print-works, bleach-works, chemical works; large manufactures of cotton hose, etc. The manufacture of machin-ery also has now become important. The cotton hose and woolen goods are ex-ported to Japan, China, Africa, and America, while the machinery is chiefly destined for Russia, Silesia, and Bo-hemia. It has had a rapid recent prog-ress, having now three times the popu-lation it had in 1870. Pop. 286,454. Chemnitz (hem'nits), MABTIN, a German Protestant theo-logian of the 16th century, born in the mark of Brandenburg in 1522. He was

Cheminitz German Protestant theo-logian of the 16th century, born in the mark of Brandenburg in 1522. He was educated at Wittemberg and became a schoolmaster in Wriezen on the Oder. In 1550 he became librarian of Duke Albert of Prussia, and about this time wrote his Loci Theologici, 1591, a learn-ed commentary on Melanchthon's sys-tem of dogmatics. He subsequently went as a minister to Brunswick, where he died in 1586. Of his other works the most valuable is the Examen Consilis Tridentini. Tridentini.

most valuable is the Line Consist Tridentinis. Chemosh (ke'mosh), the national god of the Moabites, who were on that account called 'the people of Chemosh' (Num., xxi, 29; Jer., xlvili, 46). At an early period this deity ap-pears also as the national god of the Am-monites (Judg., xi, 24), though his wor-ship seems afterwards to have given place to that of Moloch (I Ki., xi, 5, 7), if Moloch be not merely another name for the same deity. The worship of Chemosh was even introduced among the Hebrews by Solomon, who "built an high place for Chemosh, the abomination of Moab in the hill that is before Jerusalem" (I KL, xi, 7). Chemosis (kê-mô'sis), an affection of the eye, in which the con-junctiva is elevated above the transpar-ent cornea.

ent cornea.

Chemother'apy. See Serum Therapy. Chemulpo (chē-mul'põ), one of the three treaty-ports of Corea, exporting beans, ginseng, hides, wheat, etc., and importing European and Ameri-can manufactures. Pop. 30,000.

# Chenab

**Chenab** (chen-ab), a river of Hindu-stan, one of the five rivers of the Punjab. It rises in the Himalay-an ranges of Kashmir, and entering the l'unjab near Sialkot, flows in a south-westerly direction till it unites with the Jehlam; length about 800 miles. At Wazirabad it is crossed by a great iron railway bridge more than a mile long. **Cheng**, a Chinese musical instrument, consisting of a series of tubes having free reeds. Its introduction into Europe led to the invention of the accor-dion, harmonium, and other free-reed instruments.

instruments.

dion, harmonium, and other free-reed instruments. **Chénier** (shā-nyā), ANDBÉ-MARIE DE, stantinople in 1762, went to France when very young, and entered the army, but left shortly after his twenti-eth year to devote himself to literary pursuits. In 1790 he joined the moder-ate section of the Republicans, and made himself offensive alike to the Royalists and Jacobinical party. Being brought before the revolutionary tribunal he was condemned and guillotined July 25, 1794. The poems of Chénier are incon-siderable in number, but give the author a high place among the poets of France. His chief works are *Hermes; The Ele-gies; La Liberté*. etc.; and some beauti-ful odes, of which *La Jeune Captive*, written in prison, is perhaps the best known. known

known. Chénier, MARIE JOSEPH BLAISE DE, born Aug. 28, 1764, at Constantinople, went when very young to Paris, served as an officer of dragoons, left the service, and devoted himself to literary pursuits. His dramas Charles IX, Henry VIII, and La Morte de Calas, full of wild democratic declamation, were received with great applause. He was chosen a member of the Convention, where, for a considerable time, he belonged to the party of the most violent Democrats. His works comprise discourses on the history of French literature, as well as odes, songs, hymns, etc. He died in January, 1811. Chenille (she-nil'), a sort of orna-

January, 1811. Chenille (she-nil') a sort of orna-mental fabric of cord-like form, made by weaving or twisting to-gether warp-threads, with a transverse filling or weft, the loose ends of which project all round in the form of a pile. Chenille carpets have a weft of chenille, the loose threads of which produce a fine velvety pile. the loose threads fine, velvety pile.

(shā-non-sō). Bléré. See Chénonceaux

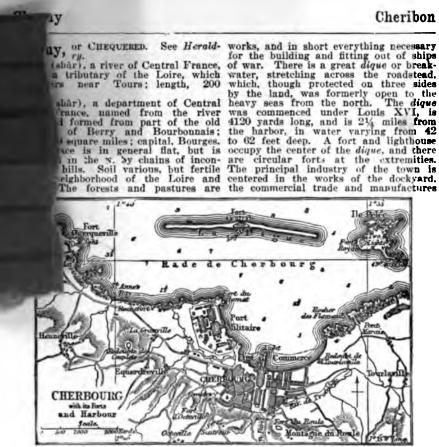
Chenopodiaceæ (kë-nō-pod-i-ā'se-ē), use of a nat. order of rency.

apetalous exogens, consisting of more or less succulent herbs or shrubs, belonging to about eighty genera and 600 species. They are mostly innocent weeds, but several are employed as pot-herbs, such as spinach and beet, and others for the manufacture of soda. The genus *Ohener pod'um* consists of weedy plants, com-mon in waste places, and known in Britain by the names of goosefoot, fat-hen, good King Henry, etc. *O. sathed-minticum* is a species well known in the United States, where it is in repute as a vermifuge, under the name of worms. *C. Quinoa* is an important S. American species, having edible seeds, on account of which it is largely cultivated in Peru and Chile as a food-plant. **Cheops** (ke'ops), the name given by Herodotus to the Egyptian monarch whom the Egyptians them-selves called Khufu. He belonged to the rulers who had for their capital Memphis; lived about 2800-2700 B.C., and built the largest of the pyramids. According to Herodotus, he employed 100,000 men on this work constantly for 20 years. **Chephren** (kef'ren), or CEPH, SN,

20 years. Chephren (kef'ren), or CEPH. TN, was the successor of the-ops as king of Egypt, and the builder the second pyramid. His name is prop-erly Khafra. See Cheops. Chepstow (chep'stö), a town and port in England, County Monnouth, on the Wye, 14 miles N. by w. of Bristol. The high tides of the Wye allow large ships to reach the town, which is very ancient, and has a castle, portions of which date back to the Conquest. In the vicinity are the beau-tiful ruins of Tintern Abbey. Pop. 2953. Check (chek)

This runs of Tintern Abbey. Pop. 2953. Cheque, or CHECK (chek), a draft on presentation. A cheque may be drawn payable to the bearer, or to the order of some one named; the first form is trans-ferable without endorsation, and payable to any one who presents it; the second must be endorsed, that is, the person in whose favor it is drawn must write his name on the back of it. Cheques are a very important species of mercantile cur-rency wherever there is a well-organized system of banking. The regular use of them for all payments, except of small amount, makes the transfer of funds a mere matter of cross-entries and trans-ferring of balances among bankers, and tends greatly to economize the use of the precious metals as a cur-rency.

Cheque



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extensive. More grain and wine are pro-duced than the demands of the inhabi-tants require. The preparation and man-ufacture of iron, called Berry iron, is the principal branch of industry. The de-partment is divided into three arrondisse-ments, Pop. 337,810

ments. Pop. 337,810 ments. Pop. 337,810 **Cherbourg** (s h ä r-b ö r), a fortified *Kcarsarge* sauk the Confederate ship senal of France, in the department of 43,731 La Manche, 106 miles w. N. w. Paris. The fortifications are very extensive, and have been greatly strengthened in recent miles from the harbor the Federal warship (q. v.) June 19, 1864. Pop. **Cherbury**, Lorn. See *Herbert*, *Ed*- *icard*. Cheribon (sher'i-bon), a seaport on years, so that Cherbourg, if not impreg-nable from the sea, is at least very diffi-tal of the province lies on the coast towards the commercial and naval ports, which is accessible at all times of tide for vessible of the largest class; there are slips for vessible of the largest dimensions, dry docks. building-sheds, mast-houses, boller-18,405.

apart from shipbuilding being compara-tively insignificant. It occupies the site of a Roman station. William the Con-queror founded a hospital here, and built the castle church. The castle was one of the strongholds of Normandy. A few miles from the harbor the Federal warship *Kcursarge* sank the Confederate ship Alabama (q. v.) June 19, 1864. Pop. 43,731.

# Cherimoyer

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Chernigov. See Tcherngov. Cherokee (cher'o-kë), a city, county seat of Cherokee Co., Iowa, 59 miles N.E. of Sioux City. It has manufacturing and farm interests. Here is a State hospital for insane. Pop. 5824. Cherokees (cher-ö-këz'), a tribe of North American Indians in the United States, occupying an allotted region in Oklahoma. Their old seats were in Georgia, Alabama, Missis-sippi and Tennessee. The Cherokees are the most enlightened of the Indian tribes, bave invented an alphabet, printed books and newspapers in their own language, live in well-built villages, and have an excellent school system. Their numbers are about 20,000. Cheroot (she-röt'). See Cigar.

Cheroot (she-rot'). See Cigar.

**Cherry** (cher'i). See Cigar. **Cherry** (cher'i), a fruit-tree of the prune or plum tribe, very ornamental and therefore much culti-vated in shrubberies. It is a native of most temperate countries of the northern hemisphere. The cultivated varieties probably belong to two species, Cerásus avium and Cerásus vulgáris, the genus Cerasus being considered a subgenus of Prunus. They are numerous, as the red or garden cherry, the red heart, the white heart, the black heart, etc. The fruit of the wild cherry, or pean, is often as well flavored, if not quite so large, as that of the cultivated varieties. It is said that the cherry was originally brought from Cerasus, in Pon-tus, to Italy, by Lucullus, about B.C. 76, and introduced into England by the Romans about A.D. 46. The cherry is used in making the liqueurs Kirschwas-ser and Maraschino (which see). The wood of the cherry-tree is hard end tough, and is very serviceable to turners and cabinet-makers. An ornamental but not edible species is the bird-cherry (Cerdsus Virginiūna), is a fine large tree, the timber of which is much used by ruti, growing in clusters, is bitter and rather astringent. It is famous for its medicinal bark. **Cherry-laurel**, the common name of probably belong to two species, Cerdsus avium and Cerdsus vulgaris, the genus Cerasus being considered a subgenus of Prunus. They are numerous, as the red or garden cherry, the red heart, the while heart, the black heart, the while heart, the black heart, varieties. It is said that the cherry was originally brought from Cerasus, in Pon-tus, to Italy, by Luculus, about B.C. 7C, and introduced into England by the and introduced into England by the ser and Maraschino (which see). The cherry is used in making the liqueurs Kirschwas-ser and Maraschino (which see). The description of the cherry-tree is hard end tough, and is very serviceable to turnery and cabinet-makers. An ornamental but not edfble species is the bird-cherry (which see). The American wild cherry fruit, growing in clusters, is bitter and rather astringent. It is famous for its medicinal bark. Cherry-laurel, the common name of A native of Asis Minor, but now

**Cherimoyer** (c h e r-i-m o i'e r), the naturalized in the United States and fruit of the  $A n \delta n a$  common in shrubberies. It is commonly *Cherimolia*, a native of S. and Central America, allied to the custard-apple. It with the sweet-bay or other true species is a heart-shaped fruit with a scaly ex-is a heart-shaped fruit with a scaly ex-delicious pulp. It with the sweet-bay or other true species deficient with that got from bitter al-monds. The leaves yield an oil nearly identical with that got from bitter al-monds. The distilled water (called 'laurel water') from the leaves is used in medicine in the same way as diluted 'laurel water') from the leaves is used in medicine in the same way as diluted by hydrocyanic or prussic acid. It is pol-59 miles N. E. of Sioux City. It has laurel is another species. manufacturing and farm interests. Here Cherry Valley. a village in Otsego

sonous in large doses. The Portugal laurel is another species. Cherry Valley, a village in Otsero Co., N. Y., the scene of a massacre November 11, 1778, during the Revolutionary war, when a hand of Indians, led by Joseph Brant (q. v.) and Tories, under Walter Butler, son of Colonel John Butler (q. v.), fell mon the inhabitants, killing 32. Chersonesus (k e resonesus; Greek, a peninsula'), an-ciently a name applied to several penin-sulas, as the Cimbrian Chersonesus (Chersonesus Cimbrica), now Jutland, etc., the Tauric Chersonesus (Ch. Tau-rica), the peninsula formed by the Black Sea and the Sea of Azoff--the Crimea. Chert (chert), a variety of quarts, called also Hornstone or Rock-fint. It is less hard than common quarts, and is usually amorphous, some-times globular or in nodules. Siliceous concretions occurring as nodules and layers in limestone rocks are also called chert. Chertsey (chert'si), a town of Eng-

# Cherusel

**Cherusci** Alessandria in 1780, and in Rome (in an altered form) in 1783, with such success as to spread his fame over Italy. After visiting London he finally settled in Paris, where he became director of the foole Royale in 1822, and died in 1812. Among his compositions are *Iphigenia in Aulide, Lodoska, Faniska, Les Deux Journées*, etc. In his later pars he confined himself almost ex-clusively to the composition of sacred music, and gained a lasting fame by his *Coronation Muss*, and more especially his gorgeous *Requirem*. **Cherusci** (Ke-rus's1), an ancient *Coronation Muss*, and more especially his gorgeous *Requirem*. **Cherusci** (Ke-rus's1), an ancient of Germany lying between the Weser and the Elbe, and having the Harz Mountains on the N. and the Sudetic range on the S. This tribe was known to the Roman sefore 50 s.c., and occa-sionally served in the Roman armies. But when Varus attempted to subject them to the Roman laws they formed a confederation with many smaller tribes, and having decoyed him into the forests, destroyed his whole army in a battle which lasted three days, and in which he himself was slain (A.D. 9). Upon this the Cherusci became the chief ob-ject of the attacks of the Romans. Ger-manicus marched against them, but though successful in several campaigns did not obtain any permanent advan-tages. Subsequently the Cherusci were overcome by the Chatti, and latterly they were incorporated among the Franks. **Chervil** (cher'vil), the popular name

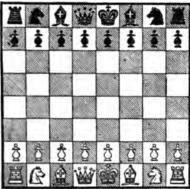
navigation. It receives the Susquehanna, Potomac, York and James Rivers and supplies a route to the sea for the com-merce of Baltimore, Washington, Nor-folk and Richmond. Off Norfolk lies the fine harbor of Hampton Roads, the scene of the famous battle between the *Monitor* and *Merrimac*. The oyster fisheries of Chesapeake Bay are the fin-est in the country, and its large num-bers of wild fowl, especially the famous canvas-back duck, make it a favorite resort for sportsmen.

state in the country, and is large aumonstruction of sacred control lines, and none especially the famous any seback duck, make it a favorite control lines in the county is and the second of the s'elden. With a second the second is a second to be seen of wild second the lines of the transmit and the state and the second to be second

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# Chess

gin, having probably arisen in India, and thence spread through Persia and Arabia to Europe. The game is played by two persons, on a board consisting of sixty-four squares arranged in eight rows of



Q.R. The pawns are contracted: K.P., Q.P., K.B.P., Q.K.P., etc. The board is divided into eight files running longi-tudinally from one player to the other, and laterally into eight ranks or rowa. Each file is named from the piece which occupies its first square, and counting inversely from the position of each player to that of the other, the rows are numbered from 1 to 8. At White's right-hand corner we have thus K.R. square; immediately above this K.R.2; and so on to K.R. 8, which com-pletes the file; the second file begins with K.Kt. square on the first row, and ends with K.Kt. 8 on the eighth. White's K.R. 8 and K.Kt. 8 are thus Black's K.R. square, and K. Kt. square, and the moves of each player are de-scribed throughout from his own posi-tion, in inverse order to the moves of his opponent.

The pawse of the lowest grade; the other eight for which, known as pawen, and two rows of the lowest grade; the other eight for which known as pawen, are defined to the same file; a pawn never moves of the lowest grade; the other eight for which known as pawen, and two rows of the lowest grade; the other eight for which known as pawen, are to be ach player hand be placed for ward to be achieved to be also be ach player which is opnored. The first time a P. is moved in the same file; a pawn never moves of two bishops, two winght; and two rows of squares the players; the pieces on the first time a P. is moved in the same file; a pawn never moves or two; afterwards only one square at a time. But in capturing an adverse to concurp the powns on the second row, leaving the upon on the two rows of squares on the first time a P. is moved to a two coupy the pown as the capture by the capture to the square black on black. The two hisps occupy the squares next the bishops; the rooks this and queen; the two knights that or corner squares. The pawns is the ensens and the explained accurption of the king. The pawn sere named from the king's or queen's side of the king. The pawn sere named from the king's newn, king's bishop or whights the bishops occupy the squares of the second or for trow. The me as thating the king's the players is the bishop or knight to the side of the king. The pawn sere named from the is the bishop or knight on the side is P. and the square passed over by placing this the high op or knight to the side is placed from the square is bishops, K.B.; King's Bishop, K.B.; King's Mishop, Q.B.; of the same color. The player may choose any piece except the king; but the square 'book is the same color. The player may the squares 'book is the same color. The player may the square 'book is the same color. The player may thoose and player is the same color. The player may thoose the same color. The player may the square 'book is any play is the square 'book is the same color. The player may thoose the same color.

Chess`

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Chester

**Chess** the queen, the most valuable piece, is generally the piece chosen. This is called queeping a pawn, and a player may thus have several queens on the board. The Rook.—The moves of the pieces are not, like those of the pawns, limited to a single direction. The R. moves in any direction and for any distance that is open along either the particular row or the file on which it happens to stand. It can, of course, capture any obstruct-ing opposing piece or pawn and occupy its place. The Bishop.—The B.'s move diagonally, either backward or forward, and can never change the color of their square. Like the R.'s, their range is only limited by the extent to which their path is open or unobstructed; a B. may also capture an obstructing opponent. The Queen.—The Q. combines the moves of the R. and B. She is the most power-ful piece on the board, and can move to, or capture at, any distance or direction in a straight line. The King.—The K. is at once the weakest and the most valuable piece on the board. In point of direction he is as free as the queen, but for distance he is limited to the adjacent squares. Standing on any central square he commands the eight squares around him and no more. Be-sides his ordinary move the K. has an-other by special privilege, in which the R. participates. Once in the game, if the squares between K. and R. are clear, if neither K. nor R. has moved, if K. is not attacked by any hostile man, and if no hostile man commands the square over which K. has to pass, K. may move two squares towards either K.R. or Q.R., and R. in the same move must occupy the square over which K. has a passed. This is called castling. The Knight.—The Kt., unlike the other pieces, never moves in a straight line. His move is limited to two squares at a time, one forwards, backwards or side-ways, and one diagonally, and he can leap over any man occupying a square intermediate to that to which he in-tends to go. All captures in chess are optional.

The definite aim in chess is the reduc-optional. The definite aim in chess is the reduc-tion to surrender of the opposing king. late years, and there is a considerable The K. in chess is supposed to be in-amount of shipping on the Dee. Pos-violable, that is, he cannot be taken, he (1911) 39,038. (an only be in such a position that if **Chester**, the Delaware, 15 miles be-taken. Notice of every direct attack low Philadelphia, with which it is con-upon him must be given by the adver-nected by steam and electric railways sarv saying check, and when the K. is It was settled by the Swedes in 1653 attacked all other men sacrificed, if swedish name being Upland. Within re-danger, interpose another man, or CAD-

ture the assailant. It is also a funda-mental rule of the game that the K. can-not be moved into check. When the K. can no longer be defended on being checked by the adversary, either by mov-ing him out of danger, or by interposing another man, or by capture of the attack-ing man the game is lost, and the adver-sary announces this by saying checkmate. When, by inadvertence or lack of skill, a player blocks up his opponent's K. so that it cannot move without going into check, and no other man can be moved without exposing him, the player reduced to this extremity cannot, without violat-ing the fundamental rule referred to, play at all. In such a case, the one player at all. In such a case, the one player being unable to play and the other out of turn, the game is considered *drawn*, that is, concluded without advantage to that is, conclueither player.

that is, concluded without advantage to either player. Chest, in man and the higher verte-brates, the cavity formed by the breast-bone in front and the ribs and backbone at the sides and behind, shut off from the abdomen below by the dia-phragm or midriff. It contains the heart, lungs, etc., and the gullet passes through it. See *Thorax*. Chester (ches'ter), an English par-liamentary and municipal borough, county town of Cheshire, situ-ated on the Dee about 16 miles from Liverpool. It is a bishop's see, and con-tains an old and interesting cathedral re-cently restored. The four principal streets have the roadways sunk consid-erably below the level of the footways, which run within piazzas covered by the upper portion of the houses, and in front of the ranges of shops. Flights of steps at convenient distances connect the carriageways with the footways or 'rows.' There are also shops and ware-houses below the rows. These features, together with the ancient walls (now a public promenade) and the quaintly-carved wooden gables of many of the houses, give an antique and picturesque appearance to Chester. Chester has manufactories of lead pipes, boots and shoes, iron-foundries, chemical works. shows, iron-foundries, chemical works, etc. The port has been improved of late years, and there is a considerable amount of shipping on the Dee. Pow (1911) 39,038.

Chesterfield, a town of Derbyshire, England, 24 miles N. of Derby. It has manufactures of machin-ery, silk, cotton, etc. Pop. 40,917.

chesterfield, PHILIP DORMER STAN-HOPE, EARL OF, an English statesman and author, was born in London in 1694, and died in 1773. On the accession of George I (1714) he be-came Gentleman of the Bedchamber to the Prince of Wales, and was returned by the borough of St. Germains, in Corn-wall, to parliament. He succeeded his father in the title in 1726, sat in the House of Lords, and acquired some dis-tinction as a speaker. In 1728 he was ambassador to Holland, in 1744 lord-lieu-tenant of Ireland, a position which he occupied with great credit, and in 1746 secretary of state; but in 1748 retired from public affairs. He obtained some reputation as an author by essays and a series of letters to his son. These writings combine wit and good sense with great knowledge of society. Chester-le-Street. a town of Eng-

writings combine with and good sense with great knowledge of society. Chester-le-Street, a town of Eng-county of and 5 miles N. of Durham, giving name to a parliamentary division of the county. It has coal-mines and iron-works. Pop. (1911) 14,713. Chesterton, GILBERT KEITH, an Eng-lish journalist and au-thor, born at Campden Hill, Kensington, in J874; was educated at St. Paul's School; attended classes at the Slade School; attended classes at the Slade School; and began his career by review-ing art books. He has contributed to many different periodicals and has writ-ten a number of books, including Brown-ing (English Men of Letters); Heretics (1906): Dickens (1906): Orthodoxy (1908); Tremendous Trifles (1909); What's Wrong with the World (1910); A Miscellany of Men (1912). Chest-foundering, a disease in

A Miscellany of Men (1014). Chest-foundering, a disease in matic affection of the muscles of the forelage, impeding both resmatic affection of the muscles of chest and forelegs, impeding both piration and the motion of the limbs.

**Chestnut** (c hes'n ut), a genus of plants, order Cupuliferse, allied to the beech. The common or Spanish chestnut (*Castanea vesca*) is a stately tree, with large, handsome, ser-

interests, including great ship yards, steel rated, dark-green leaves. The fruit con-works, textile mills, and other industries. sists of two or more seeds enveloped in Pop. (1910) 38,537; (1920) 58,030. a prickly husk. Probably a native of **Chester**, a city, county scat of Chester Asia Minor, it has long been natural-N. by w. of Columbia. The principal in-duced into Britain by the Romana, dustry is cotton mills. It is served by Chestnuts form a staple article of food several railroads and has hydro-electric power. Pop. 5557.

Chestnut (Castanea vesca).

among the peasants of Spain and Italy. The timber of the tree is inferior to that of the oak, though similar in appearance. Two American species of chestnuts, C. Americana and C. Pumila or chinkespin (the latter a shrub), have edible fruits smaller than the fruit of the European tree.—The name of Cape Chestnut is given to a beautiful tree of the rue fam-ily, a native of Cape Colony.—The More-ton Bay Chestnut is a leguminous tree of Australia. Castanospermum Austrile, with fruits resembling those of the chest-nut.—The water-chestnut is the water-

Australia. Costanospermin Australia, with fruits resembling those of the chest-nut.—The water-chestnut is the water-caltrop. Traps natans. See Calirop.—The horse-chestnut (which see) is quite a dif-ferent tree from the common chestnut. Chetah (ché'ta), the Felis jubdis or Cynaildrus jubdis), or hunting leopard of India, a native of Asia and Africa. It has its specific name (jubdita, crested or maned) from a short mane-like crest at the back of the head. When used for hunting it is hooded and placed in a car. When a herd of deer is seen, its keeper places its head in the proper direction and removes its hood. It is about the size of a large greyhound, has a catlike head, but a body more like a dog's. A slight different form inhabits Africa, distinguished as a different species, though with only trivial variations. ariations.

variations. Chettik (chet'tik), a tree of Java the Strychnos Tieuts, yield-ing a very virulent poison called by the same name, owing its virulence to the strychnine it contains.

# Chetvert

Chetvert (chet'vert), a Russian grain-measure, equal to 0.7218 of an imperial guarter, or 5.77 bushels. Cheval, A (a sheval; French), on The troops are said to be arranged d chevel when they are placed so as to command two roads, two banks of a river, etc. river, etc.

**Cheval-glass** (she val), a swing looking glass mounted on a frame, and large enough to reflect the whole figure.

the whole figure. Chevalier (shé-vá-lyā), MICHEL, a chevalier (shé-vá-lyā), MICHEL, a celebrated economist, born st Limoges in France, in 1806. He was educated as an engineer in the School of Mines, joined the St. Simonians, and suffered six months' imprisonment for promulgating the free doctrines of Père Enfantin's party. On his liberation M. Chevalier renounced his extreme doc-trines, and was sent to the United States and to England on special missions. He became a courcilor of state (1838). and to England on special missions. He became a councilor of state (1838), professor of political economy in the Collège de France (1840), member of the chamber of deputies (1846), and member of the Institute (1851). By this time he had written a number of works: Lettres sur l'Amerique du Nord; Des Litérêts Matériels en France; Essais de Politique Industrielle; Cours d'Econ-omie Politique, etc. He was known as a strong advocate of free trade and as a specialist on questions of currency. Along with Cobden and Bright he had a great part in the commercial treaty of 1860 between France and Britain. He died in 1879.

them the most valuable race of mountain sheep in Britain. The fleece weighs from 3 to 4 lbs., and the carcass of ewes varies from 12 to 16 lbs. per quar-ter, that of wethers from 16 to 20 lbs.

lbs. **Chevreul** (shé-vreul), MICHEL EU-GÈNE, a J'rench chemist, born in 1786. In 1813 be became pro-fessor of physical science in the Charle-magne Lyceum, in 1824 director of dye-ing in the Gobelins manufactory, in 1830 professor of chemistry in the Collège de France. In 1879 he retired. He wrote various works on chemistry and dyeing, and an important work on the Prinoi-ples of Harmony and Contrast of Colors, translated into English. He died in 1889. Chavron (shev'ron), a hereldic and



**Chevron** (shev'ron), a heraldic and ornamental form, variously used. In heraldry, the chevron is an ordinary supposed to rep-resent two rafters meeting at top. It is one of charges called honorable ordinaries, and is usually placed as shown in the accompanying forms are used in several armics as the distinguish-ing badge worn on the sleeve of a non-commissioned officer. In architecture, the chevron moulding con-sists of a variety of fret ornament of a zig-zag form, common in Norman architecture.



1800 between France and Britain. He died in 1879. Chevaux-de-frise (she-vö' dé frëz; i f r i e s l a n d the siege of Groningen, in that province, in 1668), contrivances used in warfare, consisting of long pieces of timber or iron forming a center, with long, sharp pointed spikes projecting all round, placed on the ground and serving to de-fend a passage, stop a breach, etc. Cheviot Hills (ché'vi-ot, or cher'i-ot), a range on the broders of England and Scotland, stretching s. w. to N. E. for above 35 miles; culminating point, the Cheviot, affers a celebrated for the most are not historical. On account of the pastured by a celebrated breed of sheep, the well-known Cheviot mountain range, noted for their large carcass and valuable wool, which qualities, com-bined with a hardiness second only to that of the black-faced breed, constitute

# Chevy Chase

plained by supposing that many of the produced. Chianti wine is full flavored events of the former were borrowed from and astringent, with an alcoholic strength the latter. There are two versions of of about 20 per cent. the ballad bearing the name of *Chery* Chian Turpentine (kI-an), a tur-*Chase*, an older one, originally called

of poens, and imitated Pindar and Anac-reon in odes and canzonets, not un-successfully. Chiana (kē-ä'nå; anciently Clanis), a river and valley of Italy, in Tuscany and Umbria. The river is artificially divided into two branches, the one flowing into the Arno, the other into the Paglia. By works begun in 1551 and completed only in 1823 the valley of the Chiana has been drained and brought under cultivation, being now one of the most productive portions of Italy. Chianti (kē-ån'tē). a district in Ital-

Cheyenne
Plained by supposing that many of the produced. Chianti wine is full flavored and astringent, with an alcoholic attempth the latter. There are two versions of about 20 per cent.
Chian Turpentine (klan), a turpentine (klan), a turpentine, bentine of the spectration.
Chian turpentine (klan), a turpentine (klan), a turpentine, bentine of the spectration.
Chian turpentine (klan), a turpentine (klan), a turpentine, bentine of the spectration.
Chian turpentine.
Chian t

of Italy. **Chianti** (kē-ān'tē), a district in Italy, **Chiavari** (ki-ā'vā-rē), a seaport town, near Siena, where what is now the best-known red wine of Italy is Genoa, 23 miles **L** by S. of Genoa, in



MICHIGAN BOULEVARD AND THE CHICAGO SKYLINE A panoramic view showing Michigan Boulevard, Grant Park, the Illinois Central suburban passenger terminal, and the Chicago skyline.

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# Chiavenna

in America. Chibouque (shi'bök), a Turkish pipe with a jong stem. Chica (chē'kù), a red coloring matter per parts of the Orinoco and the Rio Negro prepare from the leaves of a plant native to that region called Big-nonia Chica, and with which they paint their skin, in order to be better able to resist the rays of the sun. See Bignonia. Bignonia.

to resist the rays of the sun. See *Bignonia.*  **Chica** (chē'kâ), a kind of beer made from maize, in general use in Chile, Peru, and elsewhere in the moun-tainous regions of South America. The usua! method of preparing it is to steep the maize till it begins to grow, when it is exposed to dry in the sun. The malt thus prepared is then ground, mixed with warm water, and left to ferment. The beer, when ready, has a dark-yellow color, and a pleasant and somewhat bitter and sour taste, and is very intoxicating. Sometimes the In-dians, instead of grinding the malt, chew it, and this variety of the liquor is con-sidered the best. It is the national drink of the Indians, and consumed by them in great quantities. *Pito* and poso are other names for it. **Chicacole**, kel<sup>(1)</sup>, a town of India, in the Ganjam district, Madras, notable for its fine muslin manufactures. Pop. 18,10%.

a district productive of wines, olives and the United States, situated on the S. w. shore of Lake Michigan, and on the Chiavenna (kéé-ven'ná), a town of Chicago and the Calumet Rivers. It Chiavenna (kéé-ven'ná), a town of Chicago and the Calumet Rivers. It drio, Lombardy, 38 miles N. N. w. of by a fertile country. The Chicage River Bergamo. It lies in a valley in the and its two branches separate the city midst of magnificent scenery on the road to the Spligen Pass, and has an impor-tant transit trade. Pop. S211. Chibchas (chib'chay), a nation of tunnels under the river. The streets semicivilised Indians, who are wide and are laid out at right angles. formerly occupied the region about the many of them being adorned by rows of headwaters of the Magdalena River. S. fine foreat trees. The city measures America, while branches extended widely 201/2 miles in extreme length along the through the area of the present state lake and from 6 to 14 in breadth. Of of Colombia. They are of interest this the business center occupies less for their abundant and striking archeo-than a mile square. It contains most of logical relics. These include neatly built the railroad stations, the post-office, small stone temples, large carved images, rock paintings and carvings with figures in America. Chibouque (shi'bök), a Turkish pipe with a iong stem. Chica (che'k'd), a rci coloring matter Merica (che'k'd), a rci coloring matter Merica (che'k'd), a rci coloring matter sustom-house and post-office and the chamber of commerce. There is a uni-versity, which of recent years has had the chamber of commerce. There is a uni-versity, which of recent years has had the chamber of commerce. There is a uni-versity, which of recent years has had the chamber of commerce. There is a uni-versity, which of recent years has had have been constructed which extend from plant native to that region called Big-two to four miles under Lake Michigan. high-class colleges and sector tunnels supply the town with water tunnels have been constructed which extend from two to four miles under Lake Michigan, and convey the pure water of the lake into the town, where it is pumped up to a height of 160 feet and distributed. There are also a number of artesian wells. From its position at the head of the great chain of the American lakes and at the center of a network of rail-roads communicating with all parts of the Union, Chicago has always been more Chile, Peru, and elsewhere in the moun-and at the center of a network of rail-tainous regions of South America. The maize till it begins to grow, when a commercial than a manufacturing city. it is exposed to dry in the sun. The There are extensive docks, basins, and malt thus prepared is then ground, other accommodation for shipping. The mixed with warm water, and left to industries embrace iron-founding, brew-ferment. The beer, when ready, has a ing, distilling, leather, hats, sugar, to dark-yellow color, and a pleasart and somewhat bitter and sour taste, and is engines, boots and shoes. In commerce very intoxicating. Sometimes the In-dians, instead of grinding the malt, chew it, and this variety of the liquor is con-ing, and is the greatest market for grain addred the best. It is the national and timber in America. Other articles for which it is a center of trade are for which it is a center of trade are for which it is a center of trade are for which it is a center of trade are for which it is a center of the continent, over 100,000 the Ganjam district, Madras Presidency, the great lakes afford a splendid channel 507 miles N. E. of Madras, notable for 18,104. Chicago (shi-ka'gō), a city of Illi-Stock Yards, in the s. w. section of the conter on the second largest in city, are the largest in the world, cov-

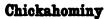
Chicago

# Chicago

Chicago ering over 400 acres of area and having accommodations for 75,000 cattle, 300, 000 hogs, 80,000 sheep and 6000 horses. Immense quantities of meat are shipped from this point to every quarter of the globe, those of dressed beef alone amounting annually to more than 1,000, 000,000 pounds. Here is also the great-est grain market in the world, approxi-mately half the total supply of grain re-ceived at the eight leading grain markets of the country being handled here. Chi-cago was the pioneer in the construc-tion of the lofty steel-frame business buildings now so common and known as 'sky-scrapers.' The Masonic Tem-ple, one of the early examples of these, is 22 stories high and can accommodate 5000 occupants. There is a magnificent park system, embracing a considerable numbe: of parks circling round the city from the lake and connected by parked boulevards 26 miles long. It is in con-templation to add to these by a number of diagonal boulevards traversing the city o itward from its business center. To prevent the contamination of the water supply by the sewage of a city of so great extent if poured into the lake, a great drainage canal has been constructed from the Chicago River to Joliet on the Desplaines River, a dis-tance of 30 miles. This has a minimum depth of 22 feet and for 10 miles is 200 feet wide and 35 feet deep. By its aid the sewage, diluted with lake water, is conveyed to the Mississippi, and the canal may ultimately be used as a ship-ping route from Lake Michigan to New Orleans. Chicago has many public buildings noteworthy for architectural beauty, among them the Art Institute. the Pub-

1871, a great fire occurred which burned down a vast number of houses and ren-dered about 150,000 persons homeless and destitute, the total money loss being esti-mated at \$190,000,000. But the energy of its inhabitants and its favorable situation school is to recover in a superisingly its inhabitants and its favorable situation enabled it to recover in a surprisingly short time. The World's Columbian Ex-position, held in Chicago in 1892–1893, celebrating Columbus' discovery of Amer-ica, occupied a site of 633 acres on Lake Michigan, part of which is now Jackson Park. In 1880 the population was 503,-185; (1890) 1,099,850; (1900) 1,698,575; (1910) 2,185,283; (1920) 2,701,705. Chicago Heights, a city of Cook Chicago Heights, a city of Cook Chicago Heights, a city of Cook Chicago Heights, pianos, etc. Pop. (1910) 14,525; (1920) 19,653. Chicago, University of, an insti-

from the lake and connected by parked (1010) 14,525; (1020) 19,653. an insti-boulevards 20 miles long. It is in con-femplation to add to these by a number of diagonal boulevards traversing the higher learning, in Chicago, occupying Chicago, University of, tution for o prevent the contamination of the principal parks of the South Park system. To prevent the contamination of the principal parks of the South Park system. To prevent the contamination of the principal parks of the South Park system. To prevent the contamination of the principal parks of the South Park system. To prevent the contamination of the principal parks of the South Park system. To prevent the contamination of the principal parks of the South Park system. Joliet on the Desplaines River, a dis-front upon the Midway Plaisance. It was tance of 30 miles. This has a minium founded in 1800 and opened its doors to depth of 22 feet and for 10 miles is 200 men and women students. Ct. 1, 1892. The swage, diluted with lake water, is the total assets in land, buildings and se-canal may ultimately be used as a ship ping route from Lake Michigan to New ment has increased to \$30,000,000, John D. among them the Art Institute, the Pub-noteworthy for architectural beauty, currities exceed \$50,000,000, John D. among them the Art Institute, the Pub-ite courty. The Coliseum on South while the Auditorium is one of the larg gifts, contributing in all some \$35,000,000. Get and best appointed public halls in the Auditorium is one of the larg yards are the largest public halls in the futernational Amphitheater at the Stock Yards are the largest public halls in the southwest corner of the country try has a large and admirable collection. The University of Chicago was a mere ham lake Shore Drive of the North Side and the boulevards. Before 1831 Chicago was a mere ham fawice then it has advanced at an alto since then it has advanced at an alto gether extraordinary rate. On October 9, black-cap timouse (Parus stricegiller) the south since then it has advanced at an Chicago, University of, an insti-



and other allied species, being derived from their note. Chickahominy, a river in Virginia, N. w. of Richmond, flowing S. E. till it joins the James River. Near this river important battles took place during the Civil war, notably that of May 31-June 1, 1862, called the Battle of Fair Oaks, in which the Union advance, which had been thrown across the river, was attacked by the Confederates with great impetuosity and but for the arrival of reinforcements would have been totally destroyed. Chickamauga (chick-a-ma'ga), a small tributary of the Tennessee River, joining the latter about 8 miles above Chattanooga. Near it was fought a great battle in the Civil war, on September 19-20, 1863, between the Federal forces under Rosecrans and the Confederates under Bragg. Early in September Rosecrans had taken the initia-tive and by a series of skilful maneuvers had compelled Bragg to fall back from Tullahoma into Chattanooga. Below here he crossed the Tennessee River and ad-vanced through the passes of the long mountain ridges that stretch in nearly parallel lines to the south. This move-ment threatened Bragg's base of supplies at Dalton, Georgia, and compelled him to evacuate Chattanooga, which was there-upon occupied by the Union forces. The mountainous country from its two wings. Bragg had an excellent opportu-nity to crush his antagonist but he hesi-tated and while he hesistated Rosecrans-soon perceiving that the Confederate re-treat was only apparent, succeeded in con-centrating his forces in the valley of Chickamauga. Bragg, who had been be valued to force a battle on Nowersen in the hope of cutting off his retreat through the gaps in Missionary Ridge. The first day of the battle. Sep-tender the, wing Longstreet from Virginia, hastened to force a battle on Nowersens in the hope of cutting off his retreat through the gaps in Missionary Ridge. The first day of the battle. Sep-tender 19, was indecisive, Thomas holding his ground on the Federal left against a spirited attack by General Polk. About erate losses were about 200, while the neon of the next day, through a misunder-Federals lost some 2000 men. Standing of orders, a gap was left in the **Chickasaw Indians** (chic'a-sa), a Union line near the junction of the center **Chickasaw Indians** (chic'a-sa), a tribe of Amer-with the right wing. Longstreet, in com- ican Indians of the Appalachian nation, mand of the Confederate left, poured his In 1833 they gave up to the United States troops into the gap, routing both the the last of their lands east of the Missis Union center and the Union right wing in sippi River, receiving as compensation a flank, driving them back toward Chatta- money indemnity and new lands on the

Chickasaw Indians

and other allied species, being derived from their note. Chickahominy, a river in Virgina, was defeated and only the splendid leader-ship of General Thomas prevented a com-plete rout. His troops fought with a grim vas defeated and only the splendid leader-ship of General Thomas prevented a com-plete rout. His troops fought with a grim vas defeated and only the splendid leader-ship of General Thomas prevented a com-plete rout. His troops fought with a grim vas defeated and only the splendid leader-ship of General Thomas prevented a com-plete rout. His troops fought with a grim vas defeated and only the splendid leader-ship of General Thomas prevented a com-plete rout. His troops fought with a grim vas defeated and only the splendid leader-ship of General Thomas prevented a com-plete rout. His troops fought with a grim vas defeated and only the splendid leader-ship of General Thomas prevented a com-plete rout. His troops fought with a grim vas defeated and only the splendid leader-thrown across the river, was attacked by the Confederates with great impetuosity and but for the arrival of reinforcements would have been totally destroyed. Chickamauga (chick-a-ma'ga), a the Tennessee River, joining the latter twas fought a great battle in the Civil was fought a great battle in the Civil was on September 19-20, 1863, between the Federal forces under Rossecrans and the Confederates under Bragg. Early in the defeated form the right moment came the Confederates under Bragg. Early in the defeated scont and center. Chatta-nooga remained in Union hands, though the defeated scont and center. Chatta-nooga remained in Union hands, though the defeated scont and their efforts to regain it. Soon afterward General Grant was removed from the command of the mountain ridges that stretch in nearly vanced through the passes of the long was removed from the command of the mountain ridges that stretch in nearly Army of the Cumberland, being succeeded by General Thomas. This important victory for the Confed-erates was ga

Army of the Connection, by General Thomas. This important victory for the Confed-erates was gained at the loss of about 17,800 men. The Federal losses, in killed, wounded and missing, were estimated at slightly over 16,000. Chickamauga, ROCK OF. See Thomas, General

Gcorge Henry.

Chickamauga National Military Park, a United States govern-ment reservation in Geor-gia near the Tennessee boundary, on the site of the battle of Chickamauga (1863). It was dedicated in September, 1895, and is maintained by Congress with the co-operation of Georgia and Tennessee.

operation of Georgia and Tennessee. Chickasaw Bluffs, or BAYOU, a place near Vicksburg, Mississippi, the scene of a bat-tle between the Federal forces under Gen-eral Sherman and the Confederates under General Pemberton. It resulted in a vic-tory for the Confederates, who repulsed Sherman's attempt to gain the rear of Vicksburg and join Grant. The Confed-erate losses were about 200, while the Federals lost some 2000 men. Chickasaw Indians (chic'a-sa), a tribe of Amer-ican Indians of the Appalachian nation.

# Chickasha

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#### Chicoutimi

subsides.
Chicoutimi (shë-kë-tëmë'), a town of Quebec province, Canada, on Saguenay River, at head of navigation. Pop. (1914) 6300.
Chieri (kë-đ'rë), an old town of North Italy, 8 miles E. s. E. of Turin, with a very large Gothic church, and manufactures of cotton, silk, etc. Pop. 15,454.
Chieti (kë-đ'të), a town of Southern Italy, capital of province of same name, on a hill near the right bank of the Pescara. It is well built, is the see of an archbishop, and has manufactures of woolens, etc. Pop. 26,368.
Chiff-Chaff. one of the smallest of

**Chiff-Chaff**, one of the smallest of whose name has been derived from its twittering note of 'chiff-chaff; chery-churry.' Its entire length is about five inches.

Chigoe (chig'ō), or JIGGEB, a very curious insect (Pulcz or Sar-copsylla penetrans), closely resembling the common flea, but of more minute size, found in the West Indies and South America and the Southern States of the United States. It burrows beneath the skin of the foot, and soon acquires the size of a use its abdomen becoming distended skin or the toot, and soon acquires the size of a pea, its abdomen becoming distended with eggs. If these eggs remain to be hatched beneath the skin great irritation and even troublesome sores are sure to result. The insect must be extracted en-tire, and with great care, as soon as its presence is indicated by a slight itching.

Chihuahua (chè-wä'wä), a city of Mexico, capital of the state of the same name, generally well-built, and supplied with water by a no-table aqueduct. It is surrounded by silver mines, and is an important entre-bet of trade Ban about 40000 The silver mines, and is an important entre-pôt of trade. Pop. about 40,000.—The STATE is bounded on the N. by the United States and on the N.E. by the Rio Grande del Norte; has a healthy limate, and is rich in silver mines. Pop. 405,265.

**Chilaw** (chi-la'), a seaport town on the west const of Ceylon, 45 miles N. by W. of Colombo, formerly a place of greater importance than it is now. Pop. about 3000.

now. Pop. about 3000. Chilblains (chil'blānz) are painful inflammatory swellings, of a deep purple or leaden color, to which the fingers, toes, heels, and other extreme parts of the body are subject on being exposed to a severe degree of cold. The pain is not constant, but rather pungent and shoeting at particular times, and an

of clear cold water, when the coffee will insupportable itching attends it. In Soat on the surface, and the chicory some instances the skin remains entire, subsides. Chicoutimi (shē-kö-tēmē'), a town be one prescribed, and extremes of heat of Quebec province, Can- and cold avoided.

#### Childbirth. See Birth.

Child Labor. Only within quite re-cent years has the necessity for strict regulation under State and Federal laws been recognized in the matter of children's labor. It was as late as 1804 before the State of Massachusetts or restallized into law the demands of the crystallized into law the demands of the social workers for an adequate measure of protection for the children employed in industries. This pioneer law limited the employment of children under thirteen in testile computing and industries. This pioneer law limited the employment of children under thirteen in textile mills. Soon after, Connecticut and then Pennsylvania and New York followed suit, until to-day twenty-six States have passed highly protective laws. With the question of Child Labor is involved that of illiteracy, which is hargely governed by the character of the legislation in the various States. In 1900 there were 510.678 illiterate children in thirteen States, in which relatively back-ward legislation existed, as compared with 19,203 such children in the remaining 30 States. The advocates of strict legislation urge the evil physical effects upon young children engaged in work for several hours daily and those which develop as a result in later years. The first broad consider-ation of Federal legislation was due to the Beveridge Child Labor Bill. This bill was substantially the same in principle as that passed by Congress in 1016, but it failed of passage. It was only in 1912 that a Children's Bureau was established in the leaves of the different States vary in detail, generally in the South they are less fa-vorable thougeh in Tennessee and Louisigenerally in the South they are less fa-vorable, though in Tennessee and Louisi-ana, the restrictions on the employment of children are stricter than in some other Southern States. The general tendency of legislation has been to lessen the employlegislation has been to lessen the employ-ment of children under fourteen. The chief objections raised to the Federal law of 1916 are based on the economic condi-tion of the cotton mill industry, which has been so largely developed in that sec-tion in recent years, and which it is claimed must have access to ample cheap labor to maintain itself in the face of advantages possessed by the mills of New England. The constitutionality of the Federal bill was questioned, and after a long legal fight it was declared unconsti-tutional by the U. S. Supreme Court, on the ground that it invaded State's rights in seeking to prohibit the transportation

## Child Labor

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## Chili

Shill
Specified in Sector A sector of the sector

the victorious Chileans gained a large accession of territory from both Bolivia Chillon (she-yon), a castle of Swit-and Peru. In 1891 an insurrection, beaded by influential members of Con-ress, caused by dissatisfaction with important stronghold of the Counts of President Balmaceda's administration, Savoy, and the prison-house of Francie

# Chillon

Bonnivard, prior of St. Victor, Geneva, petual snow 2600 feet from the summit from 1530 to 1536. It has acquired in- and upwards. In 1880 it was ascended terest from Byron's poem, The Prisoner to the top for the first time by Mr. E. of Chillon.

used for an unnatural production of the heated air in a chimney fancy. Chimæra (ki-mě'ra), a genus of car-neys may be caused eith the only known species is the Chimæra wind and giving rise to monströsa, which inhabits the northern rents of air, or by impro-seas, and is sometimes called king of the seas, and is sometimes called king of the teeth, rabbit-fish. There is but one gill-be cured by fixing a ch-opening, and the tail terminates in a point, the fish having, on the whole a sin-point, the fish having, on the whole a sin-gular appearance. It seldom exceeds 3 feet in length. The name Gold and Silver Fish is sometimes applied to the northern other species of chimæra (Callorhynchus antarctic), called also elephant-fish, so named from its prolonged snout, which is bent backward into a hook-like form. The color is satiny-white mottled with brown, and in size it resembles the northern which is back and in size it resembles the northern the mane difference in a particular construction, cowl. on the chimney to prevent the wind blowing in the southern hemisphere there is an-other species of chimæra (Callorhynchus antarctic), called also elephant-fish, so named in size it resembles the northern chimæra

from 1530 to 1536. It has acquired in and upwards. In 1880 it was ascended terest from Byron's poem, The Primer to the top for the first time by Mr. E. Whymper.
Chilo (kT0). See Chilon.
Chiloé (chêl-wâ'), a province and island of Chile. The province or prehends the island of Chile. The province to which the lawn alevers of a bishop are attached.
Chimer (shi-mër'), the upper robe to which the lawn alevers of a bishop are attached.
Chino (kT0). See Chilon.
Chiloé (chêl-wâ'), a province and a portion of the mainland. The bishop are attached.
Chino (bishop are attached. ney throat will generally create a better draught.

**Chimney-piece**, the assemblage of architectural dress-ings around the open recess constituting the fireplace in a room.

See Swallow.

color is sating-white mottled with brown, **Chimpanzee** (chim-bar'zē), the na-chimæra. **Chimborazo** (chim-bō-rli'zō), a moun-large West and Central African ape tain of Ecuador, in the (*Troglodytes niger*) belonging to the an-province of Quito, about 90 miles s, by thropoid or manlike monkeys, and to w, of Quito; lat, about 2° s. Though not the same genus as the gorilla. When the loftiest summit of the Andes, it rises full grown it is sometimes about 5 feet to the height of 20.703 feet above the high, with black hair, and is not so level of the sea, and is covered with per-large and powerful as the gorilla. Like

the orang, it has the hair on its fore-arm turned backwards, but differs from it in having an additional dorsal verte-bra and a thirteenth pair of ribs. It walks erect better than most of the apes. It feeds on fruits, often robs the gardens of the natives, and constructs a sort of nest among the branches. It is common in menageries, where it shows much in-telligence and docility. It has a great many human characteristics and becomes readily domesticated. The keeper of one of the great zoological gardens tells of one of the great zoological gardens tells of one chimpanzee who had been trained to some extent, conducting himself very creditably at the dinner table and at receptions beld in his honor. He was very fond of the costumes made for him, and had many of the characteristics of a fop. When a suit began to be faded or torn, he would ex-press his disgust by sulking; and on the appearance of the new clothes he would cease the plaintive sounds that had ex-pressed his grief and after being re-arrayed would beg for the discarded rai-ment and tear it to shreds to prevent the possibility of his being compelled to wear it again. The head of the chimpanzee is remarkable for the large development of the ears, which stand prominently from the sides of the head. China, REPUBLIC OF, a political division

**China**, **REPUBLICOF**, a political division of Asia, extending from latitude 18° to 50° N., and from longitude 74° to 134° E, area 3,341,515 square miles, which is greater than that of the conti-nent of Europe. It consists of China Proper (which now includes Manchuria), and the outlying dependencies of Sinkinent of Europe. It consists of China Proper (which now includes Manchuria), and the outlying dependencies of Sinki-ang, Chinese Turkestan and Tibet. It is bounded N. W., N. and N. E. by Asiatic Russia, along a frontier extending some 0000 miles, E. by Korea and those parts of the Pacific known as the Yellow Sea and China Sea; S. and S. W. by the China Sea, French Indo-China, Upper Burma and the Himalayan states. It is narrow-est in the extreme west. Chinese Turke-stan, along the meridian of Kashgar (76<sup>6</sup> E.), has a breadth of but 250 miles. It rapidly broadens and for the greater part of its area is over 1800 miles across in a direct N. and S. line. Its greater length is from the N. E. corner of Manchuria to the S. W. confines of Tibet, a distance of 3100 miles in a direct line. Its seaboard, about 5000 miles following the indenta-tions of the coast, is wholly in China Proper. China Proper occupies the east-ern and southeastern part of the republic, and including the three Manchurian prov-inces. inces.

#### AREA AND POPULATION OF CHINA

AREA AND FOFULA	TION OF C	JIIINA.
Province	Area, sq.m	. Population
Chekiang	36.680	17.000.000
Chili	115.830	32.571.000
Fokien (Fukien)	46,832	13,100,000
Honan	67.954	25.600.000
Hunan	88,398	23,600,000
Hupeh	71.428	24.900.000
Kansu	125,483	5.000.000
Kiangsi	69,498	14,500,000
Kiangsu	38.610	17.300.000
Kwangsi	77,220	6,500,000
Kwangtung	100,000	27,700,000
Kweichau	67,182	11,300,000
Nganbwuy	54,826	17,300,000
Shan-si	81,853	10,000,000
Shan-tung	55,984	29,600,000
Shen-si	75,290	8,800,000
Sze-chuen	218,533	23,000,000
Yun-nan	146,714	8,500,000
Manchuria ,	363,700	14,917,000
Total for China and Man-		
churia	1.896.515	331,188,000
Sinking and Chinese Tur-	•••••	
kestan	981,800	2,491,000
Manchurian Military Or-		
ganisation	• • • • • • • •	1,700,000
Other Dependencies		760,000
Tibet	463,200	6,500,000
Grand Total	3,341,515	842,639,000

o wear grand Total ....... 3,341,515 342,639,000 is to f Peking is the capital. There are many from large and populous cities. *Physical Features.*—Great part of the ivision country is not well known. The coast titude miles, by gulfs, the only one of great extent being that of Pechi-le in the portheast. China but numerous indentations of sufficient uria), imensions to form safe and capacious Sinki-roadsteads are found in every quarter. It is characterized by a fringe of islands tatic and islets, the largest of which are For-parts chi-le, the Yellow Sea and the China w Sea Sea wash the eastern and southeastern China shores, and are subject to the destructive surma storms called *typhoons*. The inland arrow-tor partly by the Great Wall separating is. It China from Mongolia, one of the most r part remarkable of human structures, being an artificial barrier 1500 miles long. length Two-thirds of the interior are estimated ware a continuation of those of Tibet and denta-central Asia. The great Kuen-lun range China throws off branches, the Tsing-Ling, Fu-east- niu-shan and Mu-ling, which, running public, eastward between the great valleys of the Kuen-lun range runs under various

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China

# China

bling is a universal vice. Drunkenness has hitherto been rare among them, though the habit of opium-smoking has become much extended. But with many Drunkenness though the habit of opium-smoking has become much extended. But, with many vicious characteristics, the Chinese are preserved from degeneration by their uni-versal frugality and thrift. Hard work, done in the most uncomplaining way, has become second nature with them. Filial piety is also a striking feature of their character, and is, in fact, the principle upon which Chinese society is constituted. They have chambers set apart for the worship of their ancestors, where religious ceremonies are regularly performed. In ceremonies are regularly performed. In the traditional Chinese social system four

In writing or printing the characters are arranged in vertical columns, to be read from top to bottom. A new alphabet for China is significant of the present spirit of progress. The old system of writing required the student to memorize no fewer than 8000 ideograms. Steps were taken some time ago to construct a phonetic alphabet, the task being en-trusted to a learned committee composed of Chow-Ili-Chu, the Secretary of the Chinese Legation at Rome, the adjunct secretaries Wan and Chou, and Solong-hello, professor of Chinese and Jap-nes, at the School of Oriental Languares in Naples and one of the greatest polyglots mathematical the world. These gentlemen have studied all known alphabets and combined them to form one which shall repre-sent every sound in the Chinese tongue. The alphabet adopted by them consists of forty-two characters, of which twenty-three are vowels



Chinese Mandarin, Lady, Boy, Female Attendant, Soldier and Bird's-nest Seller.

Bird's-nest Seller. classes are distinguished: the literary, the agricultural, the artisan and the trad-ing class. Hereditary nobility in the European sense scarcely exists, and bighly esteemed than birth. Language and Literature. The Chinese is the most important and most widely spread of the so-called monosyllabic lan-guages of Eastern Asia, in which each mord is uttered by a single movement of the organ of speech. There is no alpha-bet encharacters appears to have been orig-inally hieroglyphics or rude copies of the object designed to he expressed by them; but the hieroglyphic features have the symbols are formed of what seems to be an arbitary combination of lines, or the symbols are formed of what seems to be an arbitary combination of lines, or bight up of other symbols combined. bet othe symbols are formed of what seems to be an arbitary combination of lines, or the symbols are formed of what seems to be an arbitary combination of lines, or the symbols are formed of seembined. before these valuable arts were re-invented in the arts and sciences; fourth, poetry and the symbols are formed of what seems the symbols are formed of lines, or the symbols are formed of lines, or the symbols are formed of lines, or the symbols are formed of seembined. beta arts and a few others, on which an amount of painstaking commentary has arts were re-invented in Europe. The Chinese literature is now very extensive. It is remarkable for its an-tiquity, for the variety of subjects pre-sented, for the accuracy of its historical statements and for its ennobling ideals. For convenience the literature is divided into four classes—first, the Chinese clas-sics, together with lexicographical and philological work; second, histories of variows kinds; third, philosophy, religion, the arts and sciences; fourth, poetry and works dealing with poetry. As literary eminence has been for ages the sure ave-nue to the highest honors and offices of the state, the literati have been the gentry, the magistrates, the governors, the negotiators and the ministers of (China.

arts were re-invented in

masses of the people a form of Buddhism prevails, or a curious mixture of religious ideas and forms. Attempts to introduce Christianity were made by the Nestorians as early as the 6th century, but it was not until the arrival of the Jesuits with Father Ricci in 1582 that the faith gained any foothold. The first Protestant min-itant was Robert Morrison who avvised ister was Robert Morrison, who arrived in 1807. Christian missions, both Roman Catholic and Protestant, are established in every province of China, and freedom to embrace the Christian faith has been guaranteed by the Chinese government sine 1840. The number of Roman Cath-

ChinaChinabeen expended; the histories are those of<br/>China hereal and of the firk foreign peo-<br/>pies with whom she has had any inter-<br/>those of the liferati of many ages and in-<br/>the works of the third class are<br/>those of the liferati of many ages and in-<br/>the poetry is rich in ballads,<br/>gyrical and descriptive pieces, eulogies<br/>and descriptive pieces, eulogies<br/>dimendencies and integral part of literature<br/>foroper.diver and the necessity of military reorganisa-<br/>to the north of supreme magistrate and sov-<br/>ereign pontiff, and as the 'Son of<br/>to supreme head of the state, legis-<br/>lating by edict in matters great and small.<br/>In the seventeenth century the Manchus of<br/>the north. The traditions of the old au-<br/>toracy were preserved by the Manchus of<br/>the north. The traditions of the old au-<br/>toracy were preserved by the Manchus of<br/>the north the present system is<br/>based. Every city, town and village<br/>is pastem, and in 1912 the Ministry<br/>of Education. The traditions of which the present system is<br/>based. Every city, town and village<br/>is pastem, and in 1912 the Ministry<br/>of Education summoned a conference of<br/>the of entidely the winistry of Education.<br/>Wuchons, with courses in literature,<br/>ites and elucation, Nanking and<br/>required to establish primary schools,<br/>are conviced. The enview of the europrices in which<br/>which, with the 'middle' schools, are<br/>tower as

upon its numerous canals, navigable rivers and roads. In 1875 there was not a mile of railroad in China. The Woosung a mile of railroad in China. The Woosung line, built by foreign capital, was opened in 1876. There are now about 8000 miles of railroad open to traffic (including 2000 miles in Manchuria). It is significant that in the list of Chinese imports from the United States in 1019 appear 48 steam locomotives averaging \$50,000 apiece. In 1921 the largest freight loco-motive ever built in America was pur-chased by China. Telegraphs connect all the principal cities of the republic. The telegraph lines have a length of nearly 40,000 miles.

China

China Army and Navy. In the matter of In his reign the great wall (which see), strength Chinase military rauding Tartars, was begun in 214 sc, of 280,000 reserve of 100,000, making a Subsequently the empire broke up into the transported of the secondary of confusion and weak government enorse the transported for files and cannons and weak government enorse in the attack and the average of the informed sol of confusion and weak government enorse to the attack and the secondary will be able at starding routing the rapidly increased; so that in any future war this country will be able to take care of its interests in the most of the Tartars were now causing much a few years? China will have a standing and util ary and nave interest into the most and write, another strengthened by num any future war this country will be able to take and write, another for secient the chinese coast for secience the the strengthened by a num or strengthen ever, been much strengthened by a num-ber of steel corvettes built in England and Germany. The full complement of the navy is about 2500. A scheme for the reorganization of the Chinese navy provides for the overhauling of the dock-generally, and later for the building of new battleships, cruisers, etc. History.—The early history of the Chinese is shrouded in fable, but it is form that civilization had advanced ginning to dawn on the nations of four among 'hem when it was only be-ginning to dawn on the nations of large trade in this deleterions drug in four and by Woo-wang, and lasted from alsout 1100 B.C. to 258 B.C., is perhaps the earliest that can be regarded as his-toric, and even of it not much more is strife with one another. Chow-siang, it which the Chinese were sverywhere wang, one of the sovereigns of this dy-during which this line of sovereigns held sway there appear to have been a num-strife with one another. Chow-siang, nity by the Chinese und Shanghai to Birliah during which this line of sovereigns held sway there appear to have been a num-strife with one another. Chows siang, nity by the Chinese und synapsed by Hung-seu-tseuan or ty, from which Chine atkes its name. The did in 251 B.C. His great-grandson, bedde by Hung-seu-tseuan or ty, from which Chine atkes its name. The did in 251 B.C. His great-grandson, pelling the Hong-Kong to the Birlish in perpetuity, ber of the source of the Chinese, was the first to assume the title of 'Hoang' (em-tion laber of the chinese! was the called that of **The-**ford in 251 B.C. His great-grandson, pelling the Manchu dynasty from the first to assume the title of 'Hoang' (em-first to assume the title of 'Hoang' (em-fort), and called himself Che-Hoang-ti. He rule-dover an empure nearly co-terninous with modern China proper.

China

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# China

## China Grass

China Grass Chinadega part of the city burnt. At the end of the vertex the contest centered around ject of manufacture. Becently consid-the city of Nanking, in which a similar perialists had taken place. Yuan Shi-sin an of striking ability and the land such articles as ladies' scarfs, the modern Chinese army, ac-handkerchiefs, umbrella-overs, etc., are vepted the post of prime minister, and made of it. Hitherto, however, its high yiorous steps were taken to recover the price, owing to the difficulty of prepar-tions were as a confine steps and the source of the modern Chinese sufficiently cheap process of preparation minister to the United States. Nanking, is said to have been recently invented. The to the United States. Nanking, is said to have been recently invented. The to the United States. The first revolutionists after a severe struggle. The for all structure on the face of the earth-revolutionists after a severe struggle. The structure of Shan-tung, of which Canton is of a convention at Nanking for the pur-pose of saving the Manchu dynasty. The revolutionary delegates at Nanking of a convention at Nanking for the pur-the was the mather of the appresident of China, the assetter reaches the sex-for a president of the republic, of a convention at Nanking for the pur-the roution applediem. The form a bis in the deserts of for a sorveritorial president of the substructure in organizing the revolt. This bis Kai premier of the empire, was sub-shi Kai premier of the empire, was sub-shi the president of the republic. The revolutionary delegates at Nanking orgenerity in 1915. (Lina definitely assume the sorverity in 2016, and was the structure in organizing the revolt. Si kai sensetter height in some place the subition and the resident of the republic. The revolutionary delegates at Nanking orgenerity in 214 Ke. It is carried over height the thouse of Parliament—the Housen the sorter in organizing the revolt. Si has been used in China in othere succeded by

celected as provincial president of China, the ground, reaching in one place the pr. Sun Yat Sen, a reformer who had beight of over 5000 feet above the sea-been active in organizing the revolt. Yuan Shi-Kai, premier of the empire, was sub-in its construction, and in some places it sequently made president of the republic. In April, 1913, China definitely assumed ther place among the nations. The repre-sentatives met at Peking and constituted the House of Parliament—the House of Representatives with 506 members and the Senate with 274 members. In De-cember, 1915, the President announced ink. It has been used in China from himself as emperor. This led to a rebel-line immemorial. There are different lion and a speedy restoration of the accounts of the process, but it appears republic. Ite died in June, 1916, and was to be made by boiling the juices of cersocceded by Li Yuan Hung. A second attempt to restore the empire was made in 1917, but this failed. In August, 1917, China joined the Allies in the war against bonaceous matter. There is generally deremany and Austria-Hungary. In 1918 added some perfume—a little musk or Hsu-Shih-Ch'ang was elected president, the resigned June 2, 1922, and Li Yuan of the republic has five stripes: Crimson, yellow, blue, white, bhck. **China Grass**, Bochmeria nivêa, a family, a native of Souttern and Eastern Axia and the Asiatic islands, and now more or less cultivated in many other Asia and the Asiatic islands, and now more or less cultivated in many other Asia and the Asiatic islands, and now more or less cultivated in many other Asia and the Asiatic islands, and now more or less cultivated in many other Asia and the Asiatic islands, and now more or less cultivated in many other Asia and the Asiatic islands, and now more or less cultivated in many other the strip berne made in China into a beautiful cloth. It is very strong, pre-sents unusual resistance to the effects of word sometimes mechanically. moved sometimes mechanically.

# China Root

Leon, connected by railway with the port of Corinto, and carrying on a con-siderable trade. Pop. about 12,000. China Root, the root or rhizome of sing abrubby plant closely allied to sar-saparilla, for which it is sometimea used. China Rose, the name given to a Garden rose chiefly derived from Rosa indices and R. somperforens, both natives of China. Also a name sometimes given to Hibisous ross sincensis, one of the mallow tribe, common in China and the East Indies, and an ornament in hot-houses.

mallow tribe, common in China and the East Indies, and an ornament in hot-houses. China Sea, that part of the North Dy Formosa, N. w. by China, w. by Anam and the Malay Peninsula, S. E. by Bor-neo, and E. by the Philippines. It con-tains numerous islands, receives several considerable rivers, and forms the im-portant Gulfs of Siam and Tonquin. Chi'na-ware, porcelain, the finest isupplied it to Europeans. When broken it presents a granular surface, with a texture compact, dense, firm, hard, vitre-ous and durable. It is semitransparent, with a covering of white glass, clear, smooth, unaffected by all acids excepting the hydrofluoric, and resisting uninjured sudden changes of temperature. For the process of manufacture see Poitery. China Wax, a sort of wax depos-ited by insects on a deciduous tree with light-green, ovate, serrated leaves, cultivated in the prov-ince of Si-chuen (Ssu-chuan) in South-western China. The insects, a species of coccus, are bred in galls which are formed on a different tree, an evergreen (a species of Ligustrum or privet), and these galls are transported in great quantities to the districts where the wax trees are grown, to the branches of which they are suspended. Having emerged from the galls the insects, spread themselves over the branches, which gradually become coated with a white, waxy substance, reaching in 90 or 100 days the thickness of a quarter of an inch. The branches are then lopped of and the wax removed. It is white in color and is chiefly made into candles: it melts at 160°, whereas tallow melts at about 96°. Chinch, the popular name of certain *Rhyperochrömus*, resembling the bed

**Chinch**, the popular name of certain **Chinch**, fetid American insects, genus *Rhyparochromus*, resembling the bed-bug, very destructive to wheat, maize, etc., in the Southern and Western States.

Chinese Exclusion

Also applied to the common bedbug, (Cimea lectularius). (Cimea

unincha Islands (chin'cha), a group of small islands off the coast of Peru, lat. 13° 38' s.; lon. 76° 28' w. They are granit-ic, arid, and destitute of vegetation; and the coasts bold and difficult of access. Immense deposits of guano used to exist here, but are now exhausted. Guano from these islands began to be imported into Europe on an experimental scale about 1832, and the trade rapidly grew into importance. The Peruvian govern-ment retained the monopoly of the ex-port, and made it one of the chief sources of its revenues. Chincha Islands (chin'cha) group of s

ment retained the monopoly of the export, and made it one of the chief sources of its revenues. Chinchilla (chin-chil'a), a genus of ous rodents very closely allied to the rabbit, which they resemble in the gen-eral shape of the body, in the limbs be-ing longer behind than before, in the conformation of the rootless molars, and by the nature of the fur, which is more woolly than silky; but differing from the rabbit in the number of their incisors and molars, in a greater length of tail, and also in having broader and more rounded ears. C. lanigëra, a species about 15 inches long, is covered with a beautiful pearly-gray fur, which is highly esteemed as stuff for muffs, pelisses, lin-ings, etc. The chinchilla lives gregari-ously in the mountains of most parts of South America, and makes numerous and very deep burrows. It is of a gentle mature and very sportive. The short-naide chinchilla, Chinchills brevicawdata, of Peru, is decidedly larger than the com-mon chinchilla, with relatively shorter ears and tail. The general color of the fur of the upper parts is a bluish gray, mottled with slaty black; the under sur-face of the body, as well as the feet, being white. The tail gradually becomes bushy towards the tip: its fur is a mixture of grayish black, becoming darker towards the tip on the upper surface. Cuvier's chinchilla, Lagidium cuvieri, is larger than either of the preceding. The length of the head and body is from sixteen to twenty inches; and the tail, exclusive of the hair at the tip, is cleven to twelve inches. The ancient Peruvians made fine fabrics of chinchilla wool for coverlets and articles of clothing. Chinese Exclusion. The rapid in-crease of Chinese immigration into the United

articles of clothing. Chinese Exclusion. The rapid in-crease of Chinese immigration into the United States and the bitter opposition aroused by it among the laboring classes in Cali-fornia, led to a treaty with China in 1880, partly restricting this immigration. As the number of Chinese in this coun-

try rapidly increased in the following years, a law absolutely prohibiting immi-gration was passed by Congress in 1888. A similar policy of exclusion exists in some other countries, such as Australia and South Africa. This policy of exclu-sion has recently been applied by treaty to Januarse loborars to Japanese laborers.

to Japanese laborers. Chingleput (ching'gl-put), or CHENG-ALPAT, a coast district, and its capital, Hindustan, presidency of Madras. The district, which lies s. of Arcot and Madras—area, about 2842 square miles—has generally a bad soil, broken up frequently by granite rocks. Pop. 1,312,122. This tract of country was in 1750 and 1763 obtained by the East India Company from the Nabob of Arcot. The town is 15 miles w. from the Bay of Bengal, and has a pop. of 10,551. Chinict (chin'i-ot), a town of Hindu

Chiniot (chin'i-ot), a town of Hindu-stan, in the Punjab, near the Chenab. Pop. about 15,000. Chinkapin (chink'a-pin), the Ameri-can dwarf chestnut. See

Chestnut.

Chestnut. Chin-kiang (chin-kē-äng'), or TCHANG-KIANG, a city, China, province of Kiangsu, right bank of the Yang-tse-kiang, near the junction of the Imperial Canal; one of the British treaty ports, advantageously situated for trade. In 1842 it was taken by the British, after a determined resistance on the part of the Manchu garrison. It suf-fered severely in the Tai-ping rebellion. Pop. est. about 168,000. Chinoline (kin'o-lin; CoHrN), an oily liquid obtained by distill-ing quinine with potash and a little

ing quinine with potash and a little water, or by the dry distillation of coal. It is used in medicine as an antiseptic as an antiseptic and as a remedy in intermittent fevers, etc.

Chinon (chē-non), a town in France, dep. Indre-et-Loire, on the Vienne, 28 miles s. w. of Tours. Rabe-lais was born in its vicinity. Pop. lais was b (1906) 4071.

Chinook Winds (chin'ök), warm westerly winds experienced in some parts of the west-ern United States.

ern United States. Chinsura (chin-su'ra), a former town of Bengal, on the Hugli, now part of the city of Hugli. It was the chief Dutch settlement in Bengal and was ceded to the British in 1824. Chintz, cotton cloth or calico printed in various colors and generally glazed. Chinescon (kl-úkok'ka), a genus of the chief Dutch settlement in Bengal Inches long. and was ceded to the British in 1824. Chipping-Wycombe. See Wy-Chintz, cotton cloth or calico printed Chiquimula (chi-ki-mö'lå), a de-partment of the Ces-in various colors and generally glazed. Chiococca (ki-ö-kok'ka), a genus of 4000 sq. miles. Pop. 65,000. Its capital, tropical plants, nat. order of the same name, has about 4000.

Rubiaceæ, consisting of small, often climbing shrubs, with funnel-shaped, yellowish flowers; fruit a white berry with two seeds. The bark of the root of C. angnifüga is a violent emetic and pur-gative.

gative. Chioggia (ké-od'já), a seaport town in Italy, on one of the la-goon islands of the Adriatic, 15 miles from Venice. It is built partly on piles, and has some handsome edifices. Its harbor is fortified, and it has ship yards, fisher-ies and a coasting trade. Pop. 26,250. Chipmunk, CHIP'MUCK, the popu-the ground squirrel, genus Tamias. Chippendale (chip'en-däl), a style of furniture made by Thomas Chippendale and his son in the

Chippendale (chip'en-dāl), a style of furniture made by Thomas Chippendale and his son in the eighteenth century, and since frequently copied. It is distinguished by elaboration of ornament and harmony of proportion, and though solidly built gives a general effect of lightness. The chairs are of great variety and many of them are very beautiful. Chippendale introduced the cabriole leg from Holland, the claw and ball foot of the Orient, the straight, square Georgian leg, the lattice-work Chinese leg, the fret-work Gothic leg, etc. The chair-backs are equally varied. Chippenham (chip'nam), a munic-ipal and parliamen-tary borough of England, Wiltshire, 12 m. N. E of Bath, on the Avon. Pop. 5332. Chippewa Falls (chip'e-wä), a city, county seat of Chip-pewa Co., Wisconsin, 135 miles s. E. of Duluth, Minnesota, on the Chippewa River. It has large lumber interests, shoe factories, flour mills, etc. Seat of State Home for Feeble Minded. Pop. 9130. Chippewayans (chip'pe-wä-ans), a

Home for Feeble Minded. Pop. 9130. Chippewayans (chip'pe-wā-ans), a race of Indians of Athabasca stock, in N. W. Canada. Chippeways (chip'e-wāz), or OJIB-WAYS, a tribe of North American Indians, United States and Canada. They are distributed in bands round both sides of the basin of Lake Superior, where they once owned vast tracts. They are of the Algonquin stock, tall, and active, subsist chiefly by hunting and fishing, and number about 18,000. Chinning Snarrow (Spisella soci-

Chipping Sparrow (Spisella soci-dils), a com-mon N. American bird, some five or six inches long.

## Chiquito

Chittagong

Chiquito (chi-is'to), a group of In-dian tribes of Bolivia, set-led about the headwaters of the Mamore and the Paraguay. They are small of stature, hence the name ('Chiquito ': Sp. 'very small'). They formerly numbered over 50,000, but have decreased to less than 20,000. The Jesuits established fourishing missions among them. Chiriqui (chë-re-kë'), a province in the extreme west of the Bepeblic of Panama. It is naturally very ferifie and has good harbors both on the Caribbean and Pacific coasts. Pop. 70,846. The capital is David.—The name is also given to a bay on the Mosquito Gulf. Chirography (ki-rog'ra-fi), the art of writing; also the pretended art of reading character from the handwriting. Chiromancy (ki'rô-man'si). CHEIBO-MANCY, or PALMISTEY, the art of divining by inspection of the lines of the band. It was practiced by the Chinese, also by the Brahmins of In-dia thousands of years before the Chri-tian era. The theory is that the current of the unseen life enters the palm through the index finger and distributes its subtle force throughout the hand by the Lines of Life, Head and Heart. Crossing the Head Line is the Line of Fate, forming the let-ter 'M'. The Mounts of the hand are supposed to indicate certain traits. Chirom (ki'ron), the most famous of the foot of Mt. Pelion in Thessal, and was celebrated through all Greece for his wisdom, his benevolence, and his accom-plishments, particularly for his skill in medicine and music. The greatest men of

wisdom, his benevolence, and his accom-plishments, particularly for his skill in medicine and music. The greatest men of his time—Aesculapius, Jason, Hercules, Achilles, etc.—were represented as his pupila

**Chiropody** (kI-rop'ō-di), the art of treating diseases of the feet. Practitioners are known as Chirop-

feet. Practitioners are known as Chirop-odists. or corn-doctors. Chiropractic (ki'rö-prak-tik). a meth-od of adjusting the cause of disease, defined by its practitioners as the study and application of a universal philosophy of biology, theology, theosophy, health, disease and death. Micchanically it consists in adjusting by hand (hence the name) the subluxations of the human skeletal frame. more especially those of the spinal column, for the purpose of permitting the re-creation of all nor-mal cyclic currents through nerves that have been impigned. The first chiroprac-tic adjustment of vertebre was made in philosophy of biology, theology, theosophy, and other crustaceans, health, disease and death. Mechanically it consists in adjusting by Aaad (hence the name) the subluxations of the human skeletal frame. more especially those gal on the w.; area, 2507 sq. miles; poo. of the spinal column, for the purpose 1.508,000. The level lands, chiefly on the of permitting the re-creation of all nor-cost, and the valleys, are very fertile. mal cyclic currents through nerves that A considerable majority of the inhabi-have been impigned. The first chiroprac-tic adjustment of vertebræ was made in also the name of a commissionership or September, 1895, by Dr. D. D. Palmer, of division of Bengal. It has an area of Darenport, Iowa, but the method was not 12.118 square miles; pop. 4,800.000.

developed until 1903, when his son, B. J. Palmer, D. C., worked out a well defined system of philosophy and practice. Chi-ropractic is based upon the hypothesis that man is a spiritual being as well as mechanical and chemical, and claims that it is the Innate Intellectuality residing within the body of the patient that does the healing; the mechanical adjustments simply open the channels. There are a number of chiropractic schools in the United States. (ki-rop'te-ra; Gr. cheir.

Chiroptera (ki-rop'te-ra; Gr. cheir, hand; piera, wing). an order of mammals containing the bats. See Bat.

Chiru (chē'rö), Pantholops hodg:oni, a fine large species of antelope found in Tibet, somewhat larger than the chamoia.

Chisholm (chiz'um), a village in St. Louis Co., Minnewota, 75 miles w.w. of Duluth, on the Great Northern and the Duluth, Missabe & Northern railroads. It is in an iron ore mining, farming and lumber region. Pop. (1920) 9039.

(1920) 9039. Chislehurst (chiz'el-hurst), an urban district of Middlesex, England, 11 miles s. E. of London. where (at Camden House) Napoleon III lived, 1871-73, after the Franco-German war. Pop. (1921) 8080. Chiswick (chiz'ik), an urban district of Middlesex, England, 5 miles w. of Hyde Park Corner, London. The experiment gardens of the Royal Horticultural Society are here. Pop.

The experiment gardens of the Horticultural Society are here. Pop. (1921) 40,942.

(1921) 40,142. Chiton (kl'ton), a group of molluska, the coat-of-mail shell (order *Placophora*), affording the only instance known of molluscan shell formed of many successive portions, often in contact and overlapping each other, but never truly articulated. The shell is composed of eight pieces, the animal adhering to rocks or stones after the fashion of a limpet.—The Chiton was a gown or tunic worn by the ancient Greeks. Chitin (kl'tin), the chief tissue-form-ing insredient of the wing-cases of insects and the shells of crabs and other crustaceans.

and other crustaceans.

### Chittagong Wood

Chitteldroog. See Chitaldrúg.

Chittoor (chit'tor), or CHITTORE, a town of India, capital of the North Arcot District, Madras Presi-dency. Pop. 11,500.—Also a town of In-dia, in the state of Cochin. Pop. about dia, in 10,000.

dency. Pop. 11,500.—Also a town of In-dia, in the state of Cochin. Pop. about. Chiusa (ké-ö'så), two Italian towns, I a town of talis, the middle ages, and in a greneral sense the knights of those times. The chief enale sex (the latter somewhat ques-tion of a knight in the duss of chivalry, a state to the court of some haron of sother so flows: In his twelfth year ho was sen to the court of some baron on chiefy in attending on the ladies, and strum, a shield, it being among other strut and hase for war, he became an acquiring skill in the use of arms, in riding, etc. When advancing age and experime in the duse of arms, in riding, etc. When advancing age and experime in the duse of arms, in riding, etc. When advancing age and experime in the duse of arms, in riding, etc. When advancing age and experime in the duse of arms, in riding, etc. When advancing age and experime in the duse of arms, in riding, etc. When advancing age and experime in the duse of arms, in riding, etc. When advancing age and experime in the duse of arms, in riding, etc. When advancing age and experime in the case of distinguished birth ied the page for war, he became an acquiring skill in the use of arms, in riding, etc. When advancing age and experime in the duse of arms, in riding, etc. When advancing age and experime in the case of distinguished birth or sectum a shield, it being am

The city of Chittagong, chief town of the prepared himself by confessing, fasting, district and second port in Bengal, is etc.; religious rites were performed; and situated on the Karnaphuli about 12 then, after promising to be faithful, to miles from its mouth. Though very un-healthy, its trade has of late been stead-nor utter slander, etc., he received the accolade, a slight blow on the neck with **Chittagong Wood**, the wood of the flat of the sword from the person who rees, especially of *Chickrassia tabula*-done on the eve of battle, to stimulate the ris, order Cedrelaceæ, a light-colored, new knight to deeds of valor; or after the beautifully-grained wood used by cabinet-makers. Also *Cedrēla Toona*. See *Toon*. chivalry had its defects, chief among **Chitteldroog**. Sae *Chitaldria* prepared himself by confessing, fasting, etc.; religious rites were performed; and then, after promising to be faithful, to protect ladies and orphans, never to lie nor utter slander, etc., he received the accolade, a slight blow on the neck with the flat of the sword from the person who dubbed him a knight. This was often done on the eve of battle, to stimulate the new knight to deeds of valor; or after the combat, to reward signal bravery. Though chivalry had its defects, chief among which, perhaps, we may note a tendency to certain affectations of sentiment and profession, yet it is to be regarded as tempering in a very beneficial manner the natural rudeness of feudal society. As a system of education for the nobles it filled a place in civilization which as yet the arts and letters could hardly occupy. **Chivasso** (kē-vās'sō), a town of Italy. Pop. 4209.

### Chloral

the highest order. **Chlorate** (klö'rät), a salt of chloric very analogous to the nitrates. They are decomposed by a red heat, nearly all of them being converted into metallic chlorides, with evolution of pure oxygen. They deflagrate with inflammable sub-stances with such facility that an explo-sion is produced by slight causes. The chlorates of sodium and potassium are used in medicine. The latter, in doses of from one to twenty grains, is largely used in scarlet fever, inflamed throat, etc. It is also used in the manufacture of lucifer-matches, fireworks and per-cussion-caps.

Chloral (kið'ral; OCLCHO), a liquid chlorine, but especially of the commer-passing dry chlorine gas through abso-inte alcohol to saturation, afterwards by Stideler by the action of hydrochloric acid and manganese on starch. The ary greenish-yellow, irrespirable gas, with presents of oblorat, as now prepared a peculiar, penetrating, sufficient (CLCHOLLO), is a white, crystalline and acid, astringent taste, discovered by the acid. Chloral kills by paralysing the sction of the heart. It is a hypnotic as body, and from its peculiar yellowish-well as an anesthetic, and is frequently green color the appellation of chlorats successfully used in delirium tremens, was given to it. It is always found in Nt. Vitus' dance, poisoning by strychnia, nature in a state of combination. United avice, as an extra dose may produce serious symptoms and even death. The treatment of poisoning by chloral is to kreep the person warm by means of blank-ird, warm bottles, etc. Warm stimulart ing drinks should also be administered, such as hot coffee, hot tea, negus, etc. It has been shown that an animal kept warm by wrapping in cotton wool re-fovered from a dose of chlorat hat an animal kept warm by wrapping in cotton wool re-and coffee, hot tea, negus, etc. It as been shown that an animal kept warm by wrapping in cotton wool re-and coffee, hot tea, negus, etc. It us sports the combination with other alous exogens, allied to the peppers, and dor; natives of the warm regions of his is reckoned a stimulant and tonic of the highest order. Chlorathe (kl0'rat), a salt of chlori the them, having an aromatic, fragrant dor; is is reckoned a stimulant and tonic of the highest order. Chlorate (kl0'rat), a salt of chlori the theight order. Chlorate (kl0'rat), a salt of chlori the them, having an aromatic, fragrant dis is reckoned a stimulant and tonic of the highest order. Chlorate (kl0'rat), a salt of chlori the thorugh it supports the moufacture of pleaching agents, this property belong-ing to it through it satong affinity for the manufactu chlorine, but especially of the commer-cial articles the chlorides of lime, potash and soda. Chlorine weight 35.5), an element-ary greenish-yellow, irrespirable gas, with a peculiar, penetrating, suffocating odor and acid, astringent taste, discovered by Scheele in 1774, who named it dephlo-gisticated marine acid. It was after-wards proved by Davy to be a simple body, and from its peculiar yellowish green color the appellation of chlorine (from Greek chloros, yellowish green) was given to it. It is always found in nature in a state of combination. United with sodium it occurs very largely as the chloride of sodium or common salt, from which it is liberated by the action of sulphuric acid and manganese dioxide. Chlorine is a very heavy gas, being about two and a half times as heavy as ordi-nary air; it has a peculiar smell, and ir-ritates the nostrils most violently when inhaled, as also the windpipe and lungs. It exercises a corrosive action upon or-ganic tissues. It is not combustion of many bodies, and, indeed, spontaneously burns several. In combination with other elements it forms chlorides, which act most important parts in many manufac-turing processes. This gas may be lique-fied by cold and pressure, and it solidines and crystallizes at --102° C. into a yellow mass. Chlorine is one of the most power-ful bleaching agents, this property helong-ing to it through its strong affinity for hydrogen. Hence in the manufacture of bleaching powder (chloride of lime) it is used in immense quantities. When ap-plied to moistened colored fabrics it acts by decomposing the moisture present, the oxygen of which then destroys the color-ing matter of the cloth. etc. It is a valuable disinfectant where it can be conveniently applied, as in the form of chloride of lime. Chlorite grass-green color, opnque, usually friable or easily pulverized, com-

Chlorite (klö'rit), a mineral used in medicine. The latter, in doses Chlorite (klö'rit), a mineral of a of from one to twenty grains, is largely used in scarlet fever, inflamed throat, usually friable or easily pulverized, cometc. It is also used in the manufacture posed of little spangles, scales, prisms, of lucifer-matches, fireworks and per-or susion-caps. Chloric Ether (klö-rik ë'ther), a vol-cussion-caps. (klö-rik ë'ther), a vol-obtained by passing hydrochloric acid gas species—chlorite earth, common chlorite, into alcohol to saturation and distilling chlorite slate and foliated chlorite. See Bleaching Chloride of Lime. See Bleaching Chloride of Lime. See Bleaching Chloride of Lime. See Bleaching containing morphia, chloroform, prussic Chlorimetry (klö-rim'i-tri), the are several makes of it, but all have to bleaching power of any combination of the used with caution.

### Chlorodyne

## Chloroform

Chloroform (k15'rö-form; CHCls), the perchloride of for-myle, a volatile colorless liquid of an agreeable, fragrant, sweetish apple taste and smell, of the specific gravity of 1.48, and discovered by Soubeiran and Liebig in 1832. It is prepared by cautiously distilling together a mixture of alcohol, water and chloride of lime or bleaching powder. Its use as an anesthetic was introduced in 1847 by Professor (after-wards Sir) James Y. Simpson of Edin-burgh. For this purpose its vapor is in-haled. The inhalation of chloroform first produces slight intoxication; then, fre-quently, slight muscular contractions, unruliness and dreaming; then 'oss of voluntary motion and consciousness, the patient appearing as if sound asleep; and at last, if too much be given, death by coma and syncope. When skilfully administered in proper cases it is con-sidered one of the safest of anesthetics; but it requires to be used under certain precautions, as its application has fre-quently proved fatal. Chloroform is a powerful solvent, dissolving resins, wax, iodine, etc., as well as strychnine and other alkaloids. Chlorophane (klö'rö-fān), a mineral, a variety of fluorspar

other alkaloids. **Chlorophane** (klö'rö-fān), a mineral, a variety of fluorspar which exhibits a bright-green, phosphor-escent light when heated. **Chlorophyll** (klö'rö-fil), the green coloring matter of plants. It plays an important part in the life of the plant, as it breaks up the carbonic acid gas taken in by the stomata of the



in by the stomata of the in by the stomata of the leaves into its two ele-ments, carbon and oxy-gen, returning the oxy-gen, returning the oxy-gen to the air, and con-verting the carbon with the water obtained from the roots into starch. Light is indispensable to arises the etiolation or blanching of plants by privation of light, either by the art of the gardener or from accidental causes.

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causes. ward from the nave to the altar, fre-Chlorosis (klö-rö'sis; Greek chlöros, quently inclosed by a screen, and set yellowish green), or GREEN apart for the performance of the ordi-sin or yellowish hue of the skin, languor, indigestion and general debility, and de-logical condition of chlorosis is a diminu-tion in quantity of the red globules of the blod, an important constituent of gois. Duke of Choiseul Amboise, born in which is iron, and accordingly the ad-indigestion of from forms a leading part in early life, and after distinguishing of the treatment of this disease.—The

term is also applied to a disease of plants in which a deficiency of chlorophyll causes a blanched and yellow appearance instead of a healthy green in the plant. Choate yer, born at Salem, Massa-chusetts, in 1832. Was graduated at Har-vard in 1852, and at Harvard Law School in 1854. A member of the bar in Massa-chusetts, he removed to New York City in 1856 and was admitted to 'he bar of that city. A gifted orator and noted jurist, he was appointed ambassador to Great Britain by Fresucent McKinley, 1899-1905. He died Mar 14, 1917. Choate, RUFUS, lawyer, born in In-ceded Daniel Webster in the U. S Senate, serving until 1845. In many re-spects he was the most scholarly of American public men, and among the greatest forensic advocates America has produced. Chocolate (chok'o-lät; from Marican

greatest forensic advocates America has produced. Chocolate (chok'ō-lāt; from Mexican chocolati), a paste com-posed of the kernels of the Theobröms (acdo or cacao-tree, ground and com-bined with sugar and vanilla, cinnamon, or other flavoring substance; also a bev-erage made by dissolving chocolate in boiling water or milk. It was used in Mexico long before the arrival of the Spaniards, and is now extensively used in Europe and America as a beverage and confection. ChoctaWs (chok'ths), a North Amer-tiean Indian trive now set-tled on a portion of Oklahoma, about 16,000 in all. They formerly inhab-ited what is now the w. part of Alabama and s. part of Mississippi. They cult-vate the soil, are partially civilized, having a regular constitution prefaced with a bill of rights, courts of justice, books and newspapers. Choczim (ho'tsim). See Khotia.

Choczim (ho'tsim). See Khotin.

Choir (qwir), that part of a cruci-form church extending east-ward from the nave to the altar, fre-quently inclosed by a screen, and set apart for the performance of the ordi-nary service. The name is also given to the organized body of singers in church corridor



## Choisy-le-roi

trian War of Succession, returned to Paris, where his intimacy with Madame of Asia, and is liable to spread to other de Fompadour furnished the means of parts of the world, usually by the ordi-gratifying his ambition. After having nary channels of commercial intercourse, been ambassador at Rome, and at Vien-It first appeared in Europe in 1929, and ma, where he concluded with Maria reached Britain in 1831, spreading thence Thereas the treaty of alliance against to America. Pruesis, he became in reality prime-min-ister of France, and was very popular the production of cholera has been as-measures. He negotiated the famous creta of cholera patients. Dr. Koch Family Compact which reunited the vari- asserts that the essential cause is a ous members of the Bourbon family, and bacillus, having the form of a curved rod, restored Corsica to France. His fall hence called the comma bacillus, discov-was brought about in 1770 by a court ered by himself, and that the disease is intrigue, supported by Madame du Barry, caused by the multiplication of this or-the new favorite of the king. He was ganism in the small intestines, it being banished to his estates, but his advice in political matters was frequently taken by Louis XVI. Choisy-le-roi (sh w H - sē-l-rwä), a Grace Military Hospital, Paris, who also

**Choisy-le-roi** (sh wä-sē-l-rwä), a handsome town, France, 7 miles 8. of Paris on the Seine. In its cemetery is the tomb of Rouget de l'Isle, author of the *Marseillaise*. Pop. l'Isle, author (1906) 12,000.

(1906) 12,000. **Choke-cherry**, a popular name for of cherry (such as *Prunus* or *Cordsus* boredlis, *Prunus Virginidna*), distin-guished by their astringency. **Choke-damp**, or **AFTER-DAMP**, the spirable gas (carbonic acid) found in coal-mines after an explosion of fire-damp or light carburetted hydrogen. **Cholacocrue** (ko<sup>la</sup>sgo), a medi-

coal-mines after an explosion of fire-damp or light carburetted hydrogen. Cholagogue (ko'la-gog), a medi-cine which has the property of stimulating the liver and producing a secretion of bile thereby. Cholera (kol'e-ra), ASIATIC, a deadly parasitic endemic and epi-demic disease, characterized by acute diarrhœa, vomiting, feeble circulation, coldness, cramps and collapse. The vic-tims of cholera are those whose intestines are weakened by previous illness, bad feeding, exhaustion, or excess in eating or drinking. In an epidemic, cases vary from those rapidly fatal to those of hardly recognizable diarrhœa; but with the typ-ical pronounced case, in the course of a few hours after diarrhœa begins the stools have the typical 'rice-water' appearance, caused by quantities of floating white par-ticles like rice, which are shreds of intes-tinal mucous membrane. Vomiting begins, at first of the stomach contents, and later of 'rice-water' material. The patient suffers severely from intense cramps of the limbs and unouenchable thirst: and of 'rice-water' material. The patient suffers severely from intense cramps of the limbs and unquenchable thirst; and unless reaction soon takes place, he falls into a collapsed condition, unable to help himself in any way, although generally quite clear-headed.

hary channels of commercial intercourse. It first appeared in Europe in 1829, and reached Britain in 1881, spreading thence to America.
The primary and essential element in the production of cholera has been ascretained to be a constituent of the exercise of cholera patients. Dr. Koch asserts that the essential cause is a bacillus, having the form of a curved rod, hence called the comma bacillus, discovered by himself, and that the disease is caused by the multiplication of this organism in the small intestines, it being due usually to drinking impure water.
A cholera antitoxin was discovered by Professor Vincent, head of the Val de Grace Military Hospital. Paris, who also discovered a typhoid antitoxin, and details were presented before the Academy of Medicine in March, 1915.
What is called cholera morbus is a bilious disease, long known in most countries, and is characterized by copious voniting and purging, with violent griping, cramps of the muscles of the abdomen and lower extremities, and great depression of strength. It is most prevalent at the end of summer or the beginning of autumn. Cholera infantum (infants cholera) is the name sometimes given to a severe and dangerous diarrheea to which infants are liable in hot climates or in the hot season, and usually due to improper methods of feeding and caring for the food.
Cholesterin (kö-les'ter-in; CmHaO), a monatomic al coh ol found in bile, blood, etc., which may be obtained in the form of beautiful, pearly crystalline scales, without taste and odor. It is widely distributed in the animal economy, being essential to the brain and nerve substance, and having been found in milk, and many portions of the body, both as a normal and a pathological constituent.

cal constituent. **Cholet** (sho-lā), a town of N. W. France, dep. Maine-et-Loire, 32 miles s. w. of Angers, with manufac-tures of cotton goods and woolen stuffs, and a brisk trade. Pop. (1906) 16,554. **Cholochrome** ( $k \circ 1_0$ -kröm), CHOLO-PHÆIN ( $k \circ 1_0$ -lo-fé'in), the brown coloring matter contained in the brown coloring matter contained in bile and in the intestines, and the sub-stance coloring the fæces and the skin in jaundice.

**Cholos** (chölös), in Peru, the name for those who are partly of white, partly of Indian parentage, the most numerous class of the community.

## Cholos

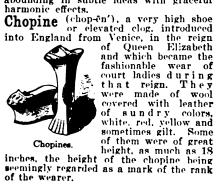
### Cholula

Cholula (chō-lö'là), a town of Mexi-co, 60 miles S. E. by E. of Mexico, formerly a large city, the seat of the religion of the ancient Mexicans, with more than 400 temples. One of these temples still remains, built in the form of a pyramid, each side of its base measuring 1440 feet and its height in all 164 feet. On the top is a chapel of Spanish origin. Pop. about 9000. Chondrite (kon'drit). a fossil sea-weed. Chondronterurgii (kon-drop-te-rii'-

**Chondropterygii** (k o n-drop-te-rij'-i-i), one of the two great sections into which Cuvier di-vides the class Pisces or fishes, distin-guished from the fishes with true bone by the cartilaginous or gristly substance of which the bones are composed, and by the cartilaginous spines of the fins. The families include the sturgeon, shark, ray and lamprey.

The families include the sturgeon, shark, ray and lamprey. Chondrus (kon'drus), the genus of seaweeds to which carra-green or Irish moss belongs. Chonos Archipelago (chô'nôs), a group of islands lying off the w. coast of Pata-gonia, mostly between lats.  $44^{\circ}$  and  $46^{\circ}$ s. and lon.  $74^{\circ}$  and  $75^{\circ}$  w. Two are large, but they are all barren and scan-tily inhabited. Chonin (chop'in), an old liquid meas-

Chopin (chop'in), an old liquid meas-ure containing half a pint in England, a quart in Scotland. Chopin (sho-pan), FRÉDÉRIC FRAN-COIS, pianist and musical com-poser, of French extraction, was born at Warsaw in 1810, went to Paris in 1831 on account of the political troubles of Poland, and died there in 1849. He wrote numerous pieces for the pianoforte, chiefly in the form of nocturnes, polo-naises, waltzes and mazurkas, all of which display much musical invention, abounding in subtle ideas with graceful harmonic effects. Chopine (chop-in'), a very high shoe



of the wearer.

Chop'sticks, the Chinese substitute for our knife, fork and spoon at meals, consisting of two smooth sticks of bamboo, wood, or ivory, which are used for conveying meat to the mouth with wonderful dexterity.

Choragic Monument (ko-rā'jik). See Choragus.

gus. Choragus (ko-rā'gus), a name given by the Greeks to the leader or director of the choruses furnished for the public festivals, and who also de-frayed the expenses of the chorus. (See Chorus). The choragus who was ad-judged to have performed his duty best received a tripod of brass, for which he had to build a monument, on which it was placed. A street in Athens which contained a great number of these cho-ragic monuments was called the Street of the Tripods. Chorale (ko-rā'le), or Cho'BAL the

of the Tripods. **Chorale** (ko-rā'le), or CHO'RAL, the psalm or hymn tune of the German Protestant churches, a simple melody to be sung in harmony or in uni-son by a number of voices to sacred words.

**Choral Music** (kö'ral), vocal music in parts; music writ-ten or arranged for a choir or chorus, and including oratorios, cantatas, masses, antheme at anthems, etc.

anthems, etc. Choral Service, in the Church of England, service with intoned responses, and the use of music throughout wherever it is author-ized. The service is said to be partly choral when only canticles, hymns, etc., are sung; wholly choral, when, in ad-dition to these the versicles, responses, etc., are sung.

are sung; wholly choral, when, in ad-dition to these the versicles, responses, etc., are sung. **Chord** (körd; Greek chorde, a string of gut), in music, the simulta-neous combination of different sounds, consonant or dissonant. The common chord consists of a fundamental or bass note with its third and fifth. When the interval between the bass note and its third is two full tones the combination is a major chord; when the interval is a tone and a half the combination is termed a minor chord; when the intervals be-tween the bass note and its third and the third and the fifth are each a tone and a half, the chord is called diminished. The tonic chord is made up of the key-note and its third and fifth; the domi-nant chord consists of the dominant or fifth of the scale accompanied by its hird and fifth; the subdominant chord has for its root or bass the subdominant or fourth of the scale, accompanied with its third and fifth.—In geom, a chord is a straight line drawn, or supposed to er-

# Chorda Dorsalis

tend, from one end of an arc of a circle to the other Chorda Dorsa lis, the notochord or dorsal chord. See Notochord.

Chordse-Voca'les, or cords. See Lerms.

Chorea (ko-re'a). See Vitus' Dance,

**Choriambus** (kö'ri-am-bus), in pros. a foot consisting of four syllables, of which the first and last are long, and the others short; that is, a choreus, or trochee, and an iambus united.

choreus, or trochee, and an lambus united. Chorion (kö'ri-on), in anatomy the external vascular membrane, covered with numerous villi or shaggy tufts, which invests the fetus in utero. Chorley (chör'li), a municipal bor-land, Lancashire, on the Yarrow, 20 miles N. w. of Manchester, with manufactures of cotton goods, calico-printing and dye-wood works, floor-cloth works, iron-foundries, etc. In the vicinity are coal, lead and iron mines. ('horley gives name to a parliamentary division of the county. Pop. (1911) 30,317. Choroid (kör'oid). C'llo'BIOID, a term rious textures; as the choroid membrane, one of the membranes of the eye, of a very dark color, situated between the sclerotic and the retina, and terminating anteriorly at the great circumference of the iris.

the iris.

the iris. **Chorus** (kö-rus), originally an ancient **Greek** term for a troop of singers and dancers, intended to heighten the pomp and solemnity of festivals. During the most flourishing period of ancient tragedy (B.C. 500.400) the Greek chorus was a troop of males and females, who, during the whole representation, were spectators of the action, never quit-ting the stage. In the intervals of the ac-tion the chorus chanted songs, which re-lated to the subject of the performance. Sometimes it even took part in the per-formance, by observations on the conduct of the personages, by advice, consolution, exhance, by observations on the conduct of the personages, by advice, consolution, exhortation, or dissussion. In the begin-ning it consisted of a great number of persons, sometimes as many as fifter but ning it consisted of a great number of persons, sometimes as many as fifty; but the number was afterwards limited to fifteen. The exhibition of a chorus was in Athens an honorable civil charge, and ras called *choragy*. (See *thoragas*.) Sometimes the chorus was divided into two parts, who sume alternately. The two parts, who sung alternately. The Chouans (shö-än), a name given divisions of the chorus were not station-ary, but moved from one side of the stage Buittany and Lower Maine, who carried to the other; from which circumstance on a petty warfare against the republican

the names of the portions of verse which the names of the portions of verse which they recited, strophe, antistrophe and epode, are derived.—In music, the chorus is that part of a composite vocal per-formance which is executed by the whole body of the singers in contradistinction to the solo airs, and concerted pieces for selected voices. The singers who join in the chorus are also called the chorus. The term is also applied to the verses of a song in which the company join the singer, or the union of a company with a singer in repeating certain couplets or verses at certain periods in a song.

singer, or the union of a company with a singer in repeating certain couplets or verses at certain periods in a song. Chose (shöz; French, a thing), in law, property; a right to pos-session; or that which may be demanded and recovered by suit or action at law. Thus money due on a bond or recom-pense for damage done is a chose is ac-tion; the former proceeding from an ex-press, the latter from an implica con-tract. A chose local is annexed to a place, as a mill or the like; a chose transitory is a thing which is movable. Chosen (cho'sen), the ancient name of Corea, now restored by Japan as the legal name. Chosroes I (kos'ro-(es), surnamed the Sassanid kings of Persia, reigned A.D. Sui-57:D. At his accession Persia was involved in a war with the Emperor

Sassanid kings of Persia, reigned A.D. 531-579. At his accession Persia was involved in a war with the Emperor Justinian, which Chosroes terminated successfully, obliging Justinian to pur-chase peace by the payment of a large sum of money. In 540, however, jeal-ous of the renown of Belisarius, the great general of the empire. Constantine violated the peace, invaded Syria, laid Antioch in ashes, and returned home laden with spoils. The war continued till 562, when the emperor was again obliged to purchase peace by an annual tribute of gold. The peace continued for ten years, when the war was renewed with Justin, the successor of Justinian, Chosroes being once more successful. The following emperor, Tiberius, at length completely defeated the Persians in 578. Chota Nagpore (chu'in nil g-pur),

**Chota Nagpore** (chu'ta n ä g-pur), CHUTIA NAGPUR, a division of British India, presidency of Bengal, divided into the districts of Ranchi, Palamau, Hazaribagh, Singbhum and Manbhum; and two fendatory states. Total area, 43,020 sq. miles. Pop. 4,903,-041 991.

Chotin (ho'tin). See Khotin.

Chouans

Chough government from an early period of the French revolution. The name was finally extended to all the Vendeans. The name was derived from the first chief of the Chouans, Jean Cottereau, who with his three brothers organized these bands in 1792. Cottereau had joined a band of dealers in contraband salt, and acquired the surname Chouan from the cry of the screech-owl (Fr. chai-huant) which he used as a signal with his companions. He was killed in an engagement with the republican troops in 1794. The Chouans were not suppressed till 1709, and even after that occasional spurts of insurrec-tion occurred down till 1830, when they were fully put down. Chough (chuf), CORNISH CHOUGH, or REDLEGGED CROW, a bird belonging to the genus Fregilus, of the crow family, but nearly allied to the starlings. F. gracilus is the only European species, and frequents, in Eng-land, chiefly the coasts of Cornwall. Its general color is black, contrasting well the vermilion-red of the beak, legs and toes. There are other species, natives of Australia, Java, etc. Chrétien de Troyes (krā-ti-en), a French troo-vère, born at Troyes about 1150; died about the end of the twelfth or beginning of the thirteenth century. His fame rests upon six romances still extant, viz., Iric et Guide, Perceral le Gallois, Le Chevalier au Lion, Cliget, Chevalier de la Table ronde, Lancelot du lac, and Guillaume d'Angleterrc. Other two of his works, Tristan, ou le Roi Mare et la Reine Yesult, and Le Chevalier d l'Epée, have been apparently lost. Chrism (krism: Greek chrisma, salve), d. Catholic bishops, and used in baptism.

mother; and that there is no personal devil

mother; and that there is no personal devil. Christchurch (k r I s t' church), a parliam entary borough, England, county of Hampshire, 21 miles southwest of Southampton, pleasantly situated at the confluence of the Avon and Stour, about 1 mile from the sea. There is a fine old priory church, dating from the time of William Rufus, with a magnificent stone altar-screen. Pop. 5104. Christchurch, land, captal of the province of Canterbury, and the see of the primate of New Zealand, is situated on the Avon River, 7 miles from Port Lyttelton, with which it has railway com-munication. It contains a number of handsome buildings, among which are the provincial government offices, the Cathe-dral, St. Michael's Church, the supreme court, hospital, museum, town library, etc. There are a fine park, a botanic garden, and high-class educational and other institutions. Pop. 49.923, or including extensive suburbs, 67,878. Christian (krist/yan), the name of the Aton 1480; died 1559. He attained the throne in 1513, and in 1518 usuped the throne of Sweden, from which he was expelled by Gustavus Vasa in 1522. He was deposed by his Daniah subjects in 1523 and retired to the Netherlands, whence he returned in 1531 with an army, but we defeated. and kept in confinement till his death.--CHRISTIAN IV, King of Denmark, son of Frederick II, born in 1577, succeded to the throne as a minor in 1588; died 1642.-CHRISTIAN X. See Denmark.-CHRISTIAN X, born in 1870, succeeded his father, Frederick VIII, in 1912. Christian Endeavor, United Society of, for the promotion of

Yesult, and Le Chevalier à l'Epée, have been apparently lost. Christ (krist: Greek chrisma, salve), C. Catholic bishops, and used in baptism. Confirmation, ordination of priests, and the extreme unction. The name is derived from the Greek word 'to anoint.' Christom (kris'om), a white garment the anointed: Messiah, from the Hebrew, has the same signification), a title of our Saviour, now used almost as a name or part of his name. See Christianity and Jeaus Christ. Christadelphians (k r i s t-a-del'fi-anzh, a religious body of recent origin, who believe that God will raise all who love him to an endless iffe in this world but that those who de not shall absolutely perish in the that Christ is the Son of God. Endless of the character of the same ston of the search of the state that Christ is the Son of God. Endless of the the same defined in the perish in the that Christ is the Son of God. Endless of the the same defined in the same ston form the state that Christ is the Son of God. Endless of the character of the same ston have the point of the era. Time the before the perish in taken place four years before the present death; that Christ is the Son of God. Endless of the character of the same ston have the point of the era. Time the before Christ is marked B.C., after Christ Deity, our human nature from his A.D. The era is computed from January



#### Christiania

ist, in the fourth year of the 194th olym-piad, and 705d year from the building of Rome. It was first used by Dionysius, a Syrian monk, in the sixth century, but did not become general until about the middle of the fifteenth century. Christiania (kris-ti-a'ni-a), a city and port, the capital of Norway, province Aggerahuus or Chris-tiania, at the head of the long narrow in-let called Christiania Fjord, about 60 miles from the open see or Skagerrack. The houses are mostly of brick and stone, generally plain buildings, devoid of archi-tectural pretension. Important public buildings are the royal palace, the house of representatives or Storthing, the gov-ernor's palace and the cathedral. An



interesting building is the fine old castle of Aggershuus, with its church and cita-del crowning a point jutting out into the fjord. Attached to the university—the only one in Norway, opened in 1813—is a museum, containing a fine collection of antiquities. The manufactures of the city consist of woolen cloth, ironware, to-bacco, paper, leather, soap, spirits, glass, etc., and there are extensive breweries. The exports are principally timber and iron. The environs are exceedingly beau-tiful. Pop. 229,101. Christianity (k r i s-ti-an'i-ti), the

### Christian Science

The first community of the followers of Jesus was formed at Jerusalem soon af-ter the death of their Master. Another at Antioch in Syria first assumed (about 65) the name of *Christians*; and the travels of the apostles spread Christianity through the provinces of the Roman Em-pire. Palestine, Syria, Asia Minor. Greece, the islands of the Mediterranean, Italy, and the northern coast of Africa, as early as the first century, contained so-cieties of Christians. At the end of the third century almost half of the inhabi-tants of the Roman Empire, and of sev-eral neighboring countries, professed this belief. While Christianity as a system was thus spreading, many heretical branches had sprung from the main trunk. belief. While Christianity as a system was thus spreading, many heretical branches had sprung from the main trunk. From the Gnostics, who date from the days of the apostles, to the Nestorians of the fifth century the number of sects was large; some of them exist to the present day. The most important events in the subsequent history of Christianity are the separation of the Eastern and Western churches early in the eighth century; and the Western reformation, which may be said to have commenced with the sectaries of the thirteenth century and ended with the establishment of Protestantism in the of the thirteenth century and ended with the establishment of Protestantiam in the sixteenth. The number of Christians now in the world is computed at 570,-000,000. Of these about 275.000,000 are Roman Catholics, 120,000,000 belong to the Greek Church, and 175,000,000 are

the Greek Church, and 175,000,000 are Protestants. Christians (krist'yans), or CHRIS-TIAN CONNECTION, the name of a denomination in the United States and Canada, adopted to express their renunciation of all sectarianism. They are to be met with in all parts of the country, the number of their churches being estimated at about 1200. Each church is an independent body; the Scrip tures are their only rule of faith, and admission to the church is obtained by a simple profession of belief in Christianity. The sect is also known as the Christian Church.

The sect is also and Church. Christiansand (kris'të-an-sand), a of Norway, the see of a bishop, with fishing interests, sawmills, wood-pulp factories, shipbuilding yards, mechanical workshops, etc. Pop. 14,701.

iron. The environs are exceedingly beau workshops, etc. Pop. 14,701. tiful. Pop. 229,101. Christianity (k r i s-ti-an'i-ti), the Christian Science, by Mary Baker Jesus Christ. Though the great moral tian religion. Christian Science dates principles which it reveals and teaches, from 1866, but Mrs. Eddy relates in her and the main doctrines of the gospel. have memoirs that she had been, for twenty been preserved without interruption, the years before 1866, 'trying to trace genius of the different nations and ages all physical effects to a mental cause.'

Science dates from 1875. when Mrs. Eddy Christianstad (k r i s' te-ån-ståd), a published the Christian Science textbook, Science and Health With Key to the capital of the län or government of same Scriptures. This is in the nature of a name, on a peninsula in the Helge Lake, commentary on the Bible, and purports about 10 miles from the Baltic, with to contain a complete statement of 'di-manufactures of gloves, linen and woolen vine metaphysics,' including directions fabrics, and some trade through the port for practice. We read on page 135: of Ahus, at the mouth of the Helge. Pop. 'The same power which heals sin heals 10,318. also sickness'; also on page 145, with Christiansted (-sted), a fortified teference to 'scientific healing': 'Its island of St. Croix, Danish West Indies, solubly connected.' As a religious teach- you about 6000. restoration of original Christianity, with a good harbor and some trade. Pop. about 6000. Christiansund (-sund), a seaport town on the N. W. coast of Norway, 82 miles S. W. of Trondhjem, on three islands which inclose disease. As a religious movement, Chris- its beautiful landlocked harbor, with a tight for the method for the method for the method. disease. As a religious movement, Chris-tian Science is notable for the rapidity of its growth. The First Church of Christ, Scientist, was organized in 1879 at Boston. In 1914 there were over 1400 Christian Science aburches or available

Christiansund (-sund), a seaport town on the N. W. coast of Norway, 82 miles s. W. of Trondhjem, on three islands which inclose its beautiful landlocked harbor, with a trade in dried and salted fish. Pop. 11,982.

disease. As a religious movement, Christing trade in dried and salted fish. Pop. of its growth. The First Church of the relation of the second the second



#### Christison

Christison Innsbruck she went to Rome, which she entered on horseback in the costume of an Amason, with great pomp. When the Pope Alexander VII confirmed her she adopted the surname of Alessandra. For some time she resided at Paris, and in-curred great odium by the execution of per Italian equerry Monaldeschi for be-trayal of confidence. Subsequently at-tempts which she made to resume the crown of Sweden failed, and she spent the rest of her life in artistic and other studies at Rome. She left an immense art collection and a large number of valuable MSS. Her writings were col-lected and published in 1752. Christison (kris'ti-sun), SIR ROBERT, at Edinburgh 1797; died 1882. A special-ist in toxicology, he was appointed to the chair of medical jurisprudence in Edin-burgh, in 1822, and in 1832 he was promoted to that of materia medica. He was twice president of the Royal Society of Scotland, and ordinary phy-sician to the Queen in Scotland. He was D.C.L. of Oxford and L.L.D. of Edin-burgh, and was elected rector of the lat-ter university in 1880. Christmas (kris'mas), the festival of the Christian Church ob-served annually on December 25th in memory of the birth of Christ, and cele-brated by a particular church service. The time when the festival was first observed is not known with certainty; but it is spoken of in the beginning of the third century by Clement of Alexandria; in the latter part of the fourth century Chrysostom speaks of it as of great antiquity. As to the day on which it was celebrated, there was long consider-

third century by Clement of Alexandria; in the latter part of the fourth century Chrysostom speaks of it as of great antiquity. As to the day on which it was celebrated, there was long consider-able diversity, but by the time of Chrysos-tom the Western Church had fixed on the 25th of December, though no certain knowledge of the day of Christ's birth existed. The Eastern Church, which previously had generally favored the 6th of January, gradually adopted the same date. Many believe that the existence of heathen festivals celebrated on or about this day had great influence on its being selected; and the Brumalia, a Roman festival held at the winter solstice, when the sun is as it were born anew, has often been instanced as having a strong bearing on the question. In the Roman Catholic, Greek, Anglican and Lutheran churches there is a special religious serv-ice for Christmas Day; and, contrary to the general rule. a Roman Catholic priest can celebrate three masses on this day. Most other churches hold special service, but almost everywhere through-

out Christendom it is kept as a holiday and occasion of social enjoyment. In modern times it is the most widely observed of all festivals, extending throughout Christendom and being a season of good fare, present giving and family reunion.

Christmas Boxes, boxes in which presents were de-posited at Christmas; hence a Christmas gift. The custom of bestowing Christ-mas boxes arose in the early days of the church, when boxes were placed in the churchs for the reception of offerings; these boxes were opened on Christmas Day, and their contents distributed by the priests on the morrow (boxing day). Christmas Cards, ornamental cards of Christmas greeting to friends to whom they are sent. The first of them ap-peared about 1862, and consisted of pictures of robins, holly, etc.; since then highly artistic designs have been intro-duced, and their manufacture is con-siderable in the United States, Germany, France and England. Immense quan-tities of them pass through the postoffice every Christmas Carol. a carol or amo

Christmas Carol, a carol or song descriptive of the birth of Christ, of incidents connected with it, sung specially at Christmas. Christmas Rose, the Helle borus the Helleborne niger (black

lebore), so called from its flower, which resembles a from its flower, which resembles a large white single rose; its foliage is dark and evergreen, and the plant blos-soms during the winter months.

## Christmas Tree,

Christmas Tree, a small fir-tree lighted up by means of tiny candles of colored wax or small Christmas Rose (Hel-Chinese lanterns, leborus niger). ornamented with flags, tinsel, ornaments, etc., and hung all over with gifts for children. Christology (kris-tol'o-ji), that branch which deals directly with the doctrine of the person of Christ. Christophe (kris-tof), HENRI, King of Hayti, was born in the West Indies in 1767, and was employed as a slave in St. Domingo on the out-break of the blacks against the French in 1793. From the commencement of the troubles he signalized kimself by his



Christophe

6-3

#### Christopher

energy, boldness and activity in many bloody engagements. Toussaint-L'Ouver-ture gave him the commission of briga-dier-general, and he was largely instru-mental in driving the French from the island. After the death of Dessalines Christophe became master of the northern part of the island. In 1811 he had him-self proclaimed King of Hayti by the name of Henri I. He also sought to perpetuate his name by the compilation of the Code Henri—a digest founded upon the Code Napoleon. His cruelty provoked a revolt, which being unable to quell he shot himself, 1820. **Christopher** (kris't ofer), ST., a martyr of the early church, beheaded in Asia Minor, accord-ing to tradition in the year 250. The Eastern Church celebrates his festival on the 9th of May, the Western on the 25th of July.

the 9th of 1 25th of July.

25th of July. Christopher, ST. (commonly called St. Kitts) a British island in the West Indies, one of the Leeward Islands, 23 miles in length, and in general about 5 in breadth; area 68 sq. miles, devoted to sugar and pastur-age. The interior consists of many rug-ged precipices and barren mountains. The chief town, a scaport with open road-stead, is Basse-Terre. The island has a legislature of its own, with an executive subordinate to the governor of the Lee-ward Islands, resident in Antigua. It was discovered by Columbus in 1493 and colonized by the English in 1628. Pop. 29,127. Christonulos (krēs-to-pö'los). ATWA-

Pop. 29,127. Christopulos (krēs-to-pö'los), ATHA-NASIOS, the best of modern Greek lyric poets, born in 1772 at Kastoria, in Macedonia; died 1847. His reputation as a poet rests on his Erotika and Bacchika, or Love and Drinking Songs, which have been sev-eral times collected and printed under the title of Lyrika. He is also the au-thor of an Æolian-Doric Grammar, and translated into modern Greek parts of the Iliad and of Herodotus. Iliad and of Herodotus.

Thisd and of Herodotus. Christ's Hospital (generally known is less likely to become oxidized, or by the name of Blue-Coat School, the tile having refer-ence to the costume of the children durated there), a school in London, founded by Edward VI for supporting poor orphans. Its present income is a beautifal pig-more supporting ment, varying in shade from deep orange poor orphans. Its present income is a beautifal pig-more supporting ment, varying in shade from deep orange poor orphans, Its present income is a beautifal pig-ment, varying in shade from deep orange poor orphans, Its present income is a beautifal pig-ment, varying in shade from deep orange poor orphans, Its present income is a beautifal pig-ment, varying in shade from deep orange poor orphans, Its present income is a beautifal pig-ment, varying in shade from deep orange poor orphans, Its present income is a beautifal pig-ment, varying in shade from deep orange poor orphans, Its present income is a beautifal pig-ment, varying in shade from deep orange poor orphans, Its present income is a beautifal pig-ment, varying in shade from deep orange poor orphans, Its present income is a beautifal pig-ment, varying in shade from deep orange poor orphans, Its present income is a beautifal pig-ment, varying in shade from deep orange poor orphans, Its present income is a symbol. Cr; a to mic symbol. Cr; a to mic her of pupils in London and at the the oxide. In its highest degree of oxi-preparatory school at Hertford, which dation it forms a compound of a ruby-

includes girls, is upwards of 1000. The London School occupied the site of the old Greyfriars monastery. Here Camden, Richardson, the novelist, Coleridge, Charles Lamb and Leigh Hunt received their education their education.

Charles Lamb and Leigh Hunt received their education. Christ's Thorn, the Paliarus acule Christ's Thorn, the Paliarus acule Christ's Thorn, the Paliarus acule thorny shrub, order Rhamnaces, with small, shining, ovate leaves and yellow-ish-green, clustered flowers. It is com-mon in the southeast of Europe and Asia Minor, and some suppose it to have been the plant from which the Jews platted the crown of thorns for our Saviour. See also Jujube. Chromate (krö'mät). See Chrome Iron Ore, Chrome Yellow. Chromatic (krö'matik). in music, a peculiarities not belonging to the diatonic scale. Thus a chromatic chord is a chord which contains a note or notes for-eign to diatonic progression; chromatic harmony, harmony consisting of chro-matic chords. The chromstic scale is a scale made up of thirteen successive semi-tones, that is, the eight diatonic tones and the five intermediate tones. Chromatic Printing. See Color

Chromatic Printing. See C Color

Chromatics, the science of colors; which treats of the properties of the colors of light and of natural bodies. Chrome Green (krôm), the green oxide or sesquioxide of chromium, farming a green pigment used by ensmelers

used by enamelers.

used by enamelers. Chrome Iron Ore, an ore of chro-eral of very considerable importance as affording chromate of potash, whence are obtained various other preparations of this metal used in the arts. Chrome-steel, a steel in which the carbon is partly or wholly replaced by chromium. It is asserted that this will bear a higher degree of heat than ordinary steel, and is less likely to become oxidized, or 'burnt,' in working, and also rolls much more smoothly than ordinary steel. Chrome Yellow, a chromate of lead. Chrome yellow, a chromate of lead. Chromium (krö'mi-um; chemical

# Chromolithography

red color. By itself it has received no practical applications. It takes its name from the various and beautiful colors which its oxide and acid communicate to minerals into whose composition they en-erald and beryl. Chromium is employed to give a fine deep green to the enamel of porcelain, to glass, etc. The oxide of chromium is of a bright grass-green or pale-yellow color. This element was orig-inally discovered in 1797 by Vauquelin, in the native chromate of lead of Si-beria. beria.

beria. Chromolithography (k r ö'mö-lith-method of producing a colored or tinted lithographic picture by using various stones having different portions of the picture drawn upon them with inks of various colors and so arranged as to blend into a complete picture. Some-times as many as twenty different colors are employed. In printing, the lighter shades are printed off first and the dark-est last. In the three-color process the use of the three primary colors suffices for all shades, and it is done on a print-ing press with photo-electrotypes Instead of stones. Chromosphere (krö'mö-sför), the

Ing press with photo-electrotypes instead of stones. Chromosphere (krö'mö-sför), the gaseous envelope which exists round the body of the sun, through which the light of the photosphere, an inner envelope of incandescent matter, passes. During total eclipses it had been observed that a red-colored envelope surrounded the sun, shooting up to great distances from the surface. It seems to have been first rec-ognized by Secchi ; and the projecting por-tions of it are commonly described as 'red-colored protuberances' and 'red flames.' To this red envelope the name *chromosphere* was given by Mr. Lockyer. The light from it is much fainter than that from the photosphere ; and till 1868, when M. Janssei and Mr. Lockyer al-most simultaneously pointed out a method of viewing it, it was never seen except during eclipses. The chromo-sphere and its prominences, when exam-ined with the telespectroscope, exhibit a spectrum of bright lines, due to incan-descent gases. 'The most elevated por-tions consist entirely or almost entirely of hydrogen, the lightest of the gases. Lower down are found the gases or va-pors of the havier metals—of sodium, marnesium, barium, iron and others. 'The lower the haver of the chromosphere examined the more densely is the spec-trum filled with lines of metals, and in the prominences the red hydrogen flames tower high above all. Chromosphere (krô'mō-sfēr), the name given to the

Chrongraph Chronic (kron'ik; from Greek chro-nos, time), a term applied to diseases which are inveterate or of long continuance, in distinction to acute dis-eases, which speedily terminate. Chronicle (kron'i-ki), a history di-order of time. In this sense it differs but little from annals. The term is mostly used in reference to the old his-tories of nations written when they were comparatively rude. The histories writ-ten in the middle ages, some in verse, some in prove, are known as chronicles. Well-known examples are the works of Froissart, Monstrelet, Fabian, Hardyng, Hall, Hollinshed, Stowe and Baker. Chron'icles, Books or, two books of formed only one book in the Hebrew canon, in which it is placed last. Its division into two parts is the work of the Screnty. (See Septuagist.) The Hebrew name means 'acts of the days, and is thus much the same as our 'journals.' The title given to it by the Seventy was Paraleipomena, meaning things omitted.' The name Chronicles was given to it by Jerome. The book is one of the latest compositions of the Old Testament, and is supposed to have even written by the same hand as Ezra and Nehemish. According to its contents the book forms three great parts:--1, greatlogical tables : 2, the history of the spinant the kingdom of Judah from the spinant the kingdom of Judah from the spinant on under Rehoboam to the Haby-onian captivity, with a notice in the last two verses of the permission granted by types to the exiles to return home and prebuild their temple. The Chronicles present many points of contact with the present many points of contact with the present many points of contact with the probation, more especially, however, with the books of Samuel and of Kings. Chronogram (kron'ogram), a device given in numeral letters by selecting cer

the books of Samuel and of Kings. Chronogram (kron'o gram), a device by which a date is given in numeral letters by selecting cer-tain letters of an inscription and printing them larger than the others, as in the motto of a medal struck by Gustavus Adolphus in 1652:---(hrIstVs DVX; ergo trIVMph Vs; where the values of C and the other capitals regarded as Ro-man numerals gives the required figure when added together. Chronograph (kron'd-graf), the name

when added together. Chronograph (kron'ô-graf), the name given to various de vices for measuring and registering very minute portions of time with extreme precision. Benson's chronograph is, in principle, a lever watch with a double second hand, the one superimposed on the other. The outer end of the lower

Chronograph

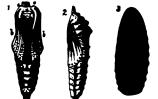
### Chronology

most hand has a small cup filled with a black viscid fluid, with a minute hole at the bottom, while the correspond-ing end of the uppermost is bent down so as just to reach the hole. At the starting (say) of a horse race, the ob-server pulls a string, whereupon the bent end of the upper hand passes through the hole and makes a black mark on the dial, instantly rebounding. Again, as each horse passes the winning-post the string is redrawn and a dot made, and thus the time occupied by each horse is noted. This chronograph registers to one-tenth of a second. Strange's chronothus the time occupied by each horse is noted. This chronograph registers to one-tenth of a second. Strange's chrono-graph is connected with the pendulum of an astronomical clock, which makes a mark on a sheet of paper at the begin-ning and end of each swing. By touch-ing a spring on the appearance is an of

mark on a sheet of paper at the begin-ning and end of each swing. By touch-ing a spring on the appearance (say) of a particular star in the field of a tele-scope, an additional dot is made inter-mediate between the two extreme ones, and by measuring the distance of this from either of these extremes the exact time can be ascertained to one-hundredth of a second. Schultze's chronograph, in which electricity is applied, is yet far more precise, registering time to the five-hundred-thousandth part of a second. **Chronology** (kron-0'ō-ji; Gr. chro-nos, time, and logos, discourse), the science which treats of time, and has for its object the arrange-ment and exhibition of historical events in order of time and the ascertaining of the intervals between them. Its basis is necessarily the method of measuring or computing time by regular divisions of the earth or moon. The motions of these bodies produce the natural division of time into years, months and days. As there can be no exact computation of time or placing of events without a fixed point from which to start, dates are fixed from an arbitrary point or *cpoch*, which forms the beginning of an *cra*. The more important of these are the creation of the world among the Jews; the birth of thist among Chris-

differs from the ordinary watch in the principle of its escapement, which is so constructed that the balance is free from constructed that the balance is free from the wheels during the greater part of its vibration, and also in being fitted with a 'compensation adjustment,' calculated to prevent the expansion and contraction of the metal by the action of heat and cold from affecting its movements. Marine chronometers generally beat half-seconds, and are hung in gimbals in boxes 6 to 8 inches square. The pocket chronometer does not differ in appearance from a watch except that it is somewhat larger. **Chronoscope** (kron'o-sköp), an in-strument for measur-ing the duration of extremely short-lived phenomena, such as the electric spark; more especially the name given instru-ments of various forms for measuring the velocity of projectiles.

ments of various forms for measuring the velocity of projectiles. Chrudim (hrö'dim), a town of Bohe-mia, 62 miles S. E. of Prague, with some manufactures and large horse-markets. Pop. 13,017. Chrysalis (kris'a-lis), a form which butterflies, moths, flies, and other insects assume when they change from the state of larva or caterpillar and before they arrive at their winged or perfect state. In the chrysalis form the animal is in a state of rest or insensi-



1, 2, Chrysalis of the White Butterfly-moth;  $e_{i}$ Palpi or feelers; b b, wing-cases; sucker;  $e_{i}$  eyes x, antennæ. 3, Chrysalis of the Oak Egger moth.

are fixed from an arbitrary point or moth. cpoch, which forms the beginning of an cra. The more important of these are length of time varying with the species the creation of the world among the and season. During this period an Jews; the birth of thrist among theirs elaboration is going on in the interior of tians; the Olympiads among the Greeks; the chrysalis, giving to the organs of the the building of Rome among the Ro-future animal their proper development. mans; the Hejira, or flight of Moham-med, among the Mohammedans, etc. See Epoch, Calendar. Chronometer (kron-om'e-ter), any instrument that meas-specifically, this term is applied to those timekeepers which are used for determin-shrubby plant (C. sincerse), whose nu-ing the longitude at sea, or for any other purpose where an accurate measure of time is required, with great portability in the instrument. The chronometer ber. The ox-eyed daisy C. Leucanthémem

# Chryselephantine

and the corn-marigold, C. Segëtum, are common weeds in Europe. Chryselephantine (kris-el-e-fan'tin; Gr. o hrysos, gold; elephes, ivory), made of gold and ivory combined, a term applied to statues executed in these two substances by the ancient Greeks, as Pheidias' great statue of Athena.

Chrysippus (kri-sip'us), an ancient Greek philosopher beloug-ing to Cilicia, lived about B.C. 282-200. He was the principal opponent of the Epicureans, and is said to have written 700 different works, mostly of a dialecti-cal character; but only a variety of fragments are extant. Chryschewrl (kris'de berilt some

fragments are extant. Chrysoberyl (k r i s' $\delta$ -ber-il; some-phane, and, by the jewelers, oriental chrysolite), a gem, of a pale yellowish-green color, usually found in round pieces about the size of a pea, but also crystal-lized in eight-sided prisms. It is an aluminate of beryllium, is next to the sapphire in hardness, and is employed in jewelry, the specimens which present an opalescent play of light being especially admired.

Chrysolite (kris'o-lit), a mineral composed of silica, mag-nesium and iron. Its prevailing color is some shade of green. It is harder than glass, but less hard than quartz; often transparent, sometimes only translucent. Very fine specimens are found in Egypt and Brazil, but it is not of high repute as a jeweler's stone. Chrysolores (kristo-lo'res)

as a jeweler's stone. Chrysoloras (kris-o-lo'ras), MANUEL, a distinguished Greek of Constantinople, born the middle of the fourteenth century; died in 1415. He settled as a teacher of Greek literature at Florence, about 1395. He also taught at Milan, l'avia and Rome, thus becoming a chief promoter of the great revival of learning.

Chrysostom

Chrysostom father, who had the command of the imperial troops in Syria, died soon after the birth of his son, whose early educa-tion devolved upon Anthusa, his mother. Chrysostom studied eloquence with Libanius, the most famous orator of his time, and soon excelled his master. After having studied philosophy with Andra-gathius he devoted himself to the Holy Scriptures, and determined upon quitting the world and consecrating his life to God in the deserts of Syria. He spent several years in solitary retirement, studying and meditating with a view to the church. Having completed his vol-untary probation he returned to Antioch in 381, when he was appointed deacon by the Bishop of Antioch, and in 380 con-sectated priest. He was chosen vicar by the same dignitary, and commissioned to preach the Word of God to the people. He became so celebrated for the elo-quence of his preaching that the Emperor Arcadius determined, in 397, to place him in the archiepiscopal see of Constan-tinople. He now exerted himself se zealously in repressing heresy, paganism and immorality, and in enforcing the obli-gations of monachism, that he raised up many enemies, and Theophilus, patriarch of Alexandria, sided and encouraged by the Empress Eudoxia, caused him to be deposed at a synod held at Chalcedon. The emperor banished him from Constan-tinople, and Chrysostom purposed retir-ing to Bithynia; but the people threat-ened a revolt. In the following night an earthquake gave general alarm. In this dilemma Arcadius recalled his orders, and Eudoxia herself invited Chrysostom to retura. The people accompanied him triumphantly to the cit-, his enemies fled, and peace was restored, but only for a short time. A feast given by the empress on the consecration of a statue, and attended with many heathen ceremonies, roused the zeal of the archibishop, who settied as a tencher of Greek literature and peace was restored, but only for a at Florence, about 1395. He also taught short time. A feast given by the empress at Milan. Pavia and Rome, thus becoming on the consecration of a statue, and a chief promoter of the great revival of learning. Chrysophan'ic Acid, the yellow publicly exclaimed against it: and ter of rhubarb. With potash it gives prelates devoted to her will, and Chrysos-a fine purple solution, and thus affords a tom was condemned and exiled to delicate test for the presence of alkalies. Armenia. Here he continued to exert his **Chrys'oprase** (-prās), a kind of pious zeal until the emperor ordered him quartz, being merely a to be conveyed to a town on the most variety of chalcedony. Its color is com-monly apple-green, and often extremely officers who had him in charge obliged beautiful, so that it is much esteemed in the old man to perform his journey on jewelry. It is translucent, or sometimes foot, and he died at Comana, by the way. semitransparent, and of a hardness little inferior to that of flint. **Chrysostom** (kris'os-tom), JOHN, ST. and there interred in the Church of the ('golden - mouthed'), a Apostles, in the sepulcher of the emperor. celebrated Greek father of the church, At a later period his remains were born in Antioch about A.D. 344: died at placed in the Vatican at Rome. The Comana in Pontus in 407. Secundus, his Greek Church celebrates his feast on the

Chub



name. Chubb, THOMAS, English writer, born Chubb, in 1679; died in 1746. Al-though engaged as a glover and chandler, he gave his chief attention to philosoph-ical and theological study, and was celebrated in the Arian controversy for his argumentative keenness. In this con-nection he published in 1715 The Su-premacy of the Father Asserted, besides various other moral and theological tracts. Chubb Look a lock so named from

various other moral and theological tracts. Chubb Lock, a lock so named from ventor, a London locksmith. It has more tumblers than usual, with the addition of a lever called the detector, which is so fixed that while it does not act under the ordinary application of the key, it cannot fail to move if any one of the tumblers be lifted a little too high, as must be the case in any attempt at picking. This movement fixes the bolt immovably, and renders all further attempts at picking useless. useless.

13th of November, tae Roman on the calcined shells or from very pure lime 13th of January. His works, which stone, and used for chewing with betel. consist of sermons, commentaries and treatises, abound with information as to the manners a.d characteristics of his age. Chub, at European river fish, of the subgenus che sides silvery, and the belly white. It frequents deep holes in rivers Guide (Cypring (Locine ceptalus)). The body is on the Yang-tse-Kiang, an important com-torm of thin dustan, 26 miles southwest of Benares, on the Ganges. The fortress stands on a lofty rock ris-for the sides silvery, and the belly white. It frequents deep holes in rivers Guide (Cypring (Locine ceptalus)). shaded by trees, but in warm weather floats near the surface, and furnishes Allied American species receive the same mame. Guide American species receive the samename.<math>Guide American species receive the samename.<math>Guide American species receive the sametai a tive comment of Grisons. See Goire.<math>Guide Stament writer, bornthough engaged as a glover and chandler-he gave his chief attention to philosoph-tical and the ological study, and wascelebrated in the Arian controversy forhis argumentative keenness. In this con-nection he published in 1715 The Su-net for the substant in Tits The Su-torus for the fortes in the stated to the fortes in a trice wites the sentent writers. Inthe gave his chief attention to philosoph-te and the ological study, and wasthe same that we keenness. In this con-nection he published in 1715 The Su-torus for the Christians, and was thusthe same writer. In the fort and the ological study, and wasthe state of the Christian com



## Church

munity differing in doctrinal matters from the remainder, as the Roman Cath-olic Church, the Protestant Church, etc.; or to designate the recognized leading



Plan of Islip Church. A. A. Chanoel. z. Nave. c. North sisle. South sisle. z. North door. y. South porch. Tower. z. West door.

South side. B. North door. F. South porch. G. Tower. H. West door. church of a nation, as the English, Scotch, or French Church. In yet another sense it signifies the edifice appropriated to Christian worship. After the conversion of Constantine the basilicæ or public halls and courts of judicature and some of the heathen temples were consecrated as Christian churches. When churches came to be specially built for Christian worship their forms were various—round, octagonal, etc. Later on the form with the cross aisle or transept (cruciform churches) became common. Early Brit-ish churches were built of wood; the first stone churches erected being that of Whithorn, Galloway (6th century), and that of York (7th century). The accom-panying illustrations exhibit a type of church which with more or less modifica-tion is common in England, and will enable the reader to understand the terms applied to the various parts. (See also *Cathedral.*) Generally speaking, any building set apart for religious ordinances is called a church, though when of a minor kind it is usually designated a *chapel.* The term church however, is of-ten restricted to the buildings for worship connected with a national establishment. They are classed as *cathedral*, when conten restricted to the buildings for worship connected with a national establishment. They are classed as *cathedral*, when con-taining a bishop's throne; *collegiate*, when served by a dean and chapter; *conventual* or *minster*, when connected with a convent or monastery; *abbey* or *priory*, when under an abbot or prior; and parochial, when the charge of a secu-lar priest. See *Christianity*, *Greek Church*, etc.

and parochial, when the charge of a secu-lar priest. See Christianity, Greek Church, etc. Church, FATHERS OF THE (patres Church, FATHERS OF THE (patres ecclesion), teachers and writers of the ancient church who flour-ished after the time of the apostles and spostolic fathers (the immediate disciples of the apostles), from the second to the sixth century. The most celebrated among the Greek fathers are Clement of

### Churching of Women

Churching of Women Alexandria, Origen, Eusebius, Athanasius and Chrysostom. The most distinguished among the Latin fathers are Tertullian, Augustine, Ambrose and Jerome. Churchill (church'ill), CHARLES, an ist, was born in 1731, and died in 1764. An early and imprudent marriage was followed by his admission to holy orders. In 1761 he published anonymously a poem called The Roscied, a clever satire on the chief actors of the day, and The Apology, a reply to his critics. A course of dissipation and intemperance followed, which excited much animadversion, and elicited from him his satire, Night. Churchill now threw aside all regard for his profession, and became a complete man about town and a professional po-litical satirist. His other productions include The Ghost, The Prophecy of Famine, Epistle to Hogarth, etc. Churchill, RANDOLPH HENRY SPEN-Che sixth Duke of Marlborough, born in 1849; died in 1895. By 1884 he had risen to the position of leader of the Conserva-tive party, and in 1885 became Indian secretary in Lord Salisbury's govern-ment. On the defeat of Gladstone's Irish Bill in 1886, Churchill became leader of the House of Commons and Chancellor of the Exchequer, but resigned at the close of the year. Churchill, author, born in St. Louis, Missouri. November 10, 1871; graduated at the Naval Academy, Annapolis, but devoted himself to literature. His novels include Richard Carvei (1899), The Crisis (1901), The Crossing (1904), Consiston (1906), and Mr. Creace's Carveer (1908). Churchill, WINSTON LEDNAED SPEN-

(1908).

(1908). Churchill, WINSTON LEONARD SPEN-Randolph Churchill, born November 30, 1874. He joined the army and took part in a number of important operations. In 1908 he became president of the Board of Trade in Asquith's cabinet. In 1910 he was made Home Secretary; in 1912 First Lord of the Admiralty, serving through a part of the Great War. He was appointed minister of munitions in 1916.

minister of munitions in 1910. Churchill River, a river of the ritories of Canada, which rises in La Crosse Lake, forms or passes through various lakes or lake-like expansions, and enters Hudson Bay after a north-easterly course of about 800 miles. It is called also Missinnipoi or English river. Churching of Women, a form of thankagivof tu. Ter-in La ing after childbirth, adopted from the Jewish ceremony of purification, and prac-tised still in the Roman Catholic and

sewisn ceremony of purification, and prac-tised still in the Roman Catholic and Anglican churches, the latter having a special service in the Prayer Book. Church-rate, in England a rate assembled, from the occupiers of land and houses within a parish, for the purpose of maintaining the church and its services. In 1868 an act was passed abolishing compulsory church-rates, except such as, under the name of church-rates, were applicable to secular purposes. Churchwardens (church-wär'dens), officers, generally two for each parish in England, who superintend the church, its property and concerns. They are annually chosen by the minister and parishioners, according to the custom of each parish. Churchyard (church'yărd), ground in which dead are bur-ied, adjoining a church. Church'yard Beetle, the Blaps mortisidan

Blaps Church'yard Beetle, the Bla mortisäga,

Church'yard Beetle, the Blaps mortialga, a very common insect found in dark, damp and dirty places; it is black, but little shining, and the tip of the elytra forms a short, obtuse point. Churn, a vessel in which milk or Churn, a vessel in which milk or the oily globules from other parts and gather them as butter. In the older forms a plunger worked vertically in a tub; in some of the modern forms dashers are turned by a crank, while in others the tub itself is swung to and fro, causing the milk to dash against the ends and sides. In the combined churn and butter-worker the butter can be partly or wholly worked after the buttermilk is drawn off; it is operated by power and used to con-siderable extent in creameries. Churrus. See Charras.

Churrus. See Charras.

sidered as the key of China, and was temporarily taken possession of by the British in 1840, 1841 and 1860. The sacred island of Pu-tu to the east of the above is covered with Buddhist temples, monasteries, etc., and is entirely in-habited by priests. Chutia Nagpur. See Chota Nag-pore.

monasteries, etc., and is entirely in-habited by priests. Chutia Nagpur. See Chota Nag-pore. Chutny, or CHUTNEE (chuťně), in compounded of sweets and acids. Ripe fruit (mangoes, raisins, etc.), spices, sour herbs, cayenne, lemon-juice, are the ordi-nary ingredients. They are pounded and boiled together, and then bottled for use. Chyle (kil), in physiology, a white or milky fluid separated from ali-ments by means of digestion. Chyle is found in the intestines after the food has been mixed with the bile and pancreatic juice. It is absorbed by the lacteal ves-sels, terminating in the inner surface of the small intestines, chiefly the jejunum, and thence passes by numerous converg-ing streams into the main trunk of the absorbent system, called the thoracic duct, through which it is gradually poured into the blood of the left subclavian vein at a short distance before it enters the right side of the heart. The chemical con-stituents of chyle are nearly the same as those of the blood itself. Chyme (kim), food after it has been digested in the stomach. In the stomach it forms a pulpy mass which passes on into the small intestine, and be-ing acted on by the bile, pancreatic fluid and intestinal juice, is separated into the stage in 1689. His first dramatic effort, Love's Last Shift, appeared in 1095; and it was followed by Woman's Wit, the Carcless Huaband and the Non-juror, of which the Hypocrite of the mod-ern stage is a new version. A court pen-sion and the appointment of poet-laureate drew upon him the rancor of the wits and poets of the day, including Pope. He is author of about twenty-five dramas, the Churrus. See Charras. Churrubusco (chu-ru-bus'kō), a vil-lage 6 miles 8, of juror, of which the Hyporite of the mod-Mexico, the scene of a battle between the ern stage is a new version. A court pen-Mexicans under Santa Anna and the sion and the appointment of poet-laureate Americans under Scott. Aug. 20, 1847, drew upon him the rancor of the wits in which the former were defeated. Chusan Islands, (chö-šin'), a group is author of about twenty-five dramas, the east coast of China, the largest in the Cibber, etc.—His son THEOPHLUS, born archipelago having the name Chusan, and heing about 21 miles long, and from 6 to 11 broad. Pop. about 200,000. Chief writer. He was much inferior to his town Ting-hae, pop. 40,000. Rice and father in capacity.—SUSANNA MARA, tea are the principal products. From its wife of Theophilus Cibber (born 1716; situation near the mouths of the Yang-died 1766), was one of the best actresses ts-kiang, which river forms the great or the English stage. She was sister of channel of communication with the Dr. Arne (composer of Rule, Britannia). capital of the empire, Chusan is con-

# Cibol

in one of his operas at the Haymarket Theater. Handel composed pieces ex-pressly adapted to her voice, and used to instruct her in singing them. She sub-sequently made her appearance in trag-edy, and gained universal admiration. Garrick is said to have exclaimed, when informed that she was dead, 'Then tragedy has expired with her.' **Cibol** (sib'nl; Allium fistulosum), a perennial plant of the onion genus, a native of Siberia, with hollow stems larger than those of the chive: used for culinary purposes.

used for culinary purposes. **Ciborium** (si-bô'ri-um), in the Ro-man Catholic Church, a kind of cup or chalice made of gold or silver and containing the bread used in the sacrament. Also a sort of canopy over an altar.

over an altar. Cicada (si-kā'da), the popular and sects belonging to the order Hemiptera, a suborder Homoptera, of many species. The males have on each side of the body a kind of drum, with which they can make a considerable noise. This, regard-ed as the insects' song, was much ad-mired by the ancients, and is frequently referred to by their poets. The largest European species are about an inch long, but some American species are much larger, and their note much louder. They are nearly all natives of tropical or warm temperate regions. The female has the posterior extremity of the abdo-Cicada (si-kā'da), They are nearly all natives of tropical or warm temperate regions. The female has the posterior extremity of the abdo-men furnished with two serrated horny plates, by means of which it pierces the branches of trees to deposit its eggs. An English species (C. anglica) is found in the New Forest. The seventcen years' locust (Cicāda septemdecim) occurs in many parts of the United States.

Cicala (chi-kă'lâ). The cicada.

Cicely (sis'e-li), a popular name ap-plied to several umbelliferous plants. Sweet cicely, or sweet chervil, is prants. Sweet cicely, or sweet chervil, is Myrrhis odorāta, a plant common in Britain and in other parts of Europe. It was formerly used in medicine, and in some parts of Europe is used as an ingredient in soups. Sweet cicely is found in our woods from Canada to Virginia.

Cicero (sis'e-ro). TULLIUS, MARCUS **Cicero** (sis'e-ro). MARCUS TULLIUS, the greatest of the Roman orators, was born 106 B.C. at Arpinum. Uis family was of equestrian rank, and his father, though living in retirement, was a friend of some of the chief public men. He received the best education available, studied philosophy and law, became familiar with Greek literature, and acquired some military knowledge from

serving a campaign in the Marsic war. At the age of twenty-five he came for-ward as a pleader, and having undertaken the defense of Sextus Roscius, who was accused of parricide, procured his acquit-tal. He visited Greece B.C. 79, conversed with the philosophers of all the schools, and

philosophers of all the schools, and profited by the in-struction of the masters of oratory. Here he formed that close friend-ship with Atticus of which his letters furnish such inter-esting evidence. He also made a tour in Asia Minor and remained some



The also made and the source of the source o and the crimes of Verre's were painted in the liveliest colors in his immortal speeches. Seven of the Verrine orations are preserved, but only two of them were delivered, and Verres went into voluntary exile. After this suit Cicero was elected to the office of ædile, B.C. 70, became prætor in 67, and consul in 63. It was now that he succeeded in defeating the conspiracy of Catiline (see Catiline). after whose fall he received greater honors than had ever before been bestowed upon a Roman citizen. He was hailed as the saviour of the state and the father of his country (parens patria), and thanksgivings in his name were voted to the gods. But ('icero's fortune had now reached the culminating point, and soon was to decline. The ('atilinarian conspirators who had been executed had not been settenced accord-ing to law, and Cicero, as chief magis-trate, was responsible for the irregu-larity. Publius Clodius, the tribune of the people, raised such a storm against him that he was obliged to go into exile (E.C. 58). On the fall of the Clodian faction he was recalled to Rome, but he never succeeded in regaining the influence he had once possessed. In B.C. 52 Le be-

### Cicero

### Cicero

came proconsul of Cilicia, a province which he administered with eminent suc-cess. As soon as his term of office had expired he returned to Rome (B.C. 49), which was threatened with serious dis-turbances owing to the rupture between Cæsar and Pompey. He espoused the cause of Pompey, but after the battle of Pharsalia he made his peace with Cæsar, with whom he continued to all appearance friendly, and by whom he was kindly treated, until the assassination of the latter (44 B.C.). He now hoped to regain his political influence. The conspirators shared with him the honor of an enter-prise in which no part had been assigned him; and the less he had contributed to it himself the more anxious was he to justify the deed and pursue the advan-tages which it offered. Antony having taken Cæsar's place, Cicero composed those admirable orations against him, de-livered in B.C. 43, which are known to us by the name of *Philippics* (after the speeches of Demosthenes against Philip of Macedon). His implacable enmity to-Macedon). His implacable enmity to-wards Antony induced him to favor young Wards Antony induced him to favor young Octavianus, who professed to entertain the most friendly feelings towards him. Octavianus, however, having possessed himself of the consulate, and formed an alliance with Antony and Lepidus, Cicero was proscribed. In endeavoring to escape from Tusculum, where he was living when the news of the proscription ar-rived, he was overtaken and murdered by a party of soldiers; and his head and hands were publicly exhibited in the for-um at Rome. He died in his sixty-fourth year, B.C. 43. Cicero's eloquence has always remained a model. After the re-vival of learning he was the most admired fourth year, B.C. 43. Cicero's eloquence has always remained a model. After the re-vival of learning he was the most admired of the ancient writers; and the purity and elegance of his style will always place him in the first rank of Roman classics. His works, which are very nu-merous, consist of orations; philosoph-ical, rhetorical and moral treatises; and letters to Atticus and other friends. The life of Cicero was written by Plu-tarch, and there are modern lives by Middleton, Forsyth and others. Cicero left a son of the same name by his wife Terentia. Young Marcus was born in B.C. 65, was carefully educated, and dis-tinguished himself in military service. In B.C. 30. Octavianus (Augustus) assumed him as his colleague in the consulship, and he was afterwards governor of Asia or Syria.-Cicero's younger brother. QUIN-TUS, was a man of some note both as a public character and as a writer. He was married to a sister of Atticus, and was put to death at the same time as the orator. the orator.

Cicero, a residential town in Cook Co., Illinois, in the vicinity of Chi-cago. Pop. (1920) 44,995. Cicindela (si-sin-dě'la), a genus of insects to which C. cam-pestris, the tiger-beetle, one of the most common of American species, belongs. Ciconia (si-kô'ni-a), the genus of birds to which the stork belongs.

Cicuta (si-kū'ta), a genus of umbel-liferous plants, including *O.* virōsa, water-hemlock or cowbane. See Hemlock.

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Cienfuegos (the-en-fö-a'gos), a sea-port of Cuba, on the south coast of the island, with a safe and capacious harbor on the Rsy of Jagua, 130 miles s. E. of Havana, with which (and other towns) it is con-nected by railway. It is among the finest towns of the island, and exports sugar, wax. timber. cocoa, molasses and tobacco. Pop. 82.092. Cieza (the-a'tha), a town of Spein, in the province and 24 miles n.w. of Murcia, on an eminence near the right bank of the Negura. Pop. 13,626. Cigar (si-gär'), a small roll of manu-factured tobacco leaves care-fully made up, and intended to be Cienfuegos (the-en-fö-a'gos), a port of Cuba, on

# Cigarette

smoked by lighting at one end and draw-ing the smoke through it. The choicest from Havana. Cigars are consumed in enormous quantities in America and Europe. Medicated cigars, or cigars made of some substance having remedial properties, are often used for certain complaints, as stramonium cigars for asthma. Uneroots are peculiarly-shaped cigars much thicker at one end than the other, and are largely imported from Manila.

**Cigarette** (sig-a-ret'), a sort of small cigar made by rolling fine-cut tobacco in thin paper specially pre-pared for the purpose. It is now a favorite form with smokers and immense numbers are used

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Italy, which at that time had degenerated into mechanical conventionalism. His best paintings are in the Church of Santa Maria Novello at Florence, and in the



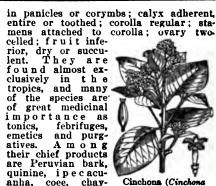
### Cimmerians

Cimolian Earth, or CIMOLITE species of clay or hydrous silicate of alu-mina, named in ancient times from Cim-olos or Argentiera, one of the Cyclades, where it is still to be found. It is of whitish and soft texture, molders into a fine powder, and effervesces with acids. In classical times it was used as a deter-gent, as a soap for cleaning delicate fabrics, and by the bath-keepers.

Cimolos (si-mo'los). See Argentiera.

**Cimolos** (si-mö'los). See Argentiera. **Cimon** (si'mon, ki'mon), an ancient Athenian general and states-man, was a son of the great Miltiades. He fought against the Persians in the battle of Salamis (480 B.C.), and shared with Aristides the chief command of the fleet sent to Asia to deliver the Greek colonies from the Persian yoke. The re-turn of Aristides to Athens soon after left Cimon at the head of the whole naval force of Greece. He distinguished himself by his achievements in Thrace, having defeated the Persians by the Stry-mon, and made himself master of the country. He conquered the pirate-island of Scyros, subdued all the cities on the coast of Asia Minor, pursued the Persian fleet up the Eurymedon, destroyed more than 200 of their ships, and then, having landed, on the same day entirely defeated their army (B.C. 469). He employed the spoil which he had taken in the embellish-ment of Athens. and in 463 reduced the revolted Thasians; but the popular lead-ers beginning to fear his power, charged Cimolos (si-mo'los). See Argentiera. Importance as tonics, febrituges, and purgation of the great Miltiades. Here for the febrituges of the Athenian general and states atives. Am on given any was a son of the great Miltiades. There relies and purgation of the great Miltiades. There relies and purgation of the Athenian general and states the crossing of the Athenian of the anha, cocee, chay interval force of Greece. He distinguished flowers, inhabiting chiefly the east side himself by his achievements in Thrace, of the Athes of Peru, Bolivia, Ecador and made himself master of the order of Greece. He distinguished flowers, inhabiting chiefly the east side of the states of the athes of the values precise crown or loca bark by C. condamines, and made himself master of the athes of the athes of the southes of the Athes of Peru, Bolivia, Ecador and Colombia. The valuable Perusan mon, and made himself master of the athes of the athes of the southes of the athes of the southes of the athes and in atigs power, charged by the king of Macedon. The sources of Peruvian bark, but printing to fear his power, charged by the subtitue for it in larger quantities there as a droped, but when Cimons athere of Peruvian bark, but printing and the ather insulting the ather instruction in the ather insulting the athere athes athere of the athere athes athere of the athere athes athere athes athere athe

of great medicinal importance as tonics, febrifuges, tonics, reprinting emetics and purg-atives. A m o n g



## Cincinnati

Temple, the Union Central Building (34 stories high), the buildings of the Uni-versity of Cincinnati, the Art Museum and Art Academy, The Ohio Mechanics Insti-tute, the great Music Hall, where the famous Cincinnati May festivals are given; the Government Building and Custom House, Lane Theological Semi-nary, Cincinnati University of Music, the City Hall (constructed of granite and Amherst stone, costing \$2,000,000), and many other important buildings. The Lincoln Statue, by George Grey Barnard, in Lytle Park, which was unveiled in 1917, has attracted world-wide attention. Of special interest are the homes of Lyman Beecher, Harriet Beecher Stowe, and Alice and Phoebe Cary. Cincinnati ranks high as a manufactur-

Lyman Beecher, Harriet Beecher Stowe, and Alice and Phorbe Cary. Cincinnati ranks high as a manufactur-ing city, the annual output of its indus-tries ranging from \$200,000,000 to \$250,-000,000. The products include railway materials and supplies, carriages, furni-ture, leather, boots and shoes, clothing, candles, soop and oils, and many other articles. Next to Chicago it is the great-est pork market in the Union. It is also a very important horse market and a lead-ing exchange for grain and pig iron. There are abundant supplies of lumber, hard and soft wood, iron and scrap iron, clay, sand, lime, stone, copper, and certain mineral deposits. Pop. (1900) 325,902; (1910) 365,591; (1920) 401,247. **Cincinnati**, Society of THE, an or-ganization originating among the officers of the American revolu-tionary army in 1783, the right of mem-bership being restricted to officers of the Continental army and their eldest male descendants or eldest male of next collat-eral branch. The name is after Lucius Quinetius Cincinnatus.

eral branch. The nan Quinctius Cincinnatus.

Cincinnatus, LUCIUS QUINCTIUS, a cian, born about 519 B.C. He succeeded in 460 to the consulship, and then retired to cultivate his small estate beyond the Tiber. In 458 B.C. the messengers of the senate found him at work when they came to summon him to the dictatorship. He rescued the army, defeated the Fequi, and returned quietly to his farm. At the age of eighty he was again appointed dictator to oppose the ambitious designs of Spu-rius Melius.

film being before the objective for an in-stant, when a powerful light passes through it. See Moving Picture Machine.

stant, when a powerful light plasses through it. See Moving Picture Machine. Cineraria (sin-e-rā'ri-a), a genus of plants, nat. order Compos-itæ, chiefly found in South Africa. Cinna (sin'na), LUCIUS COBNELIUS, an eminent Roman, an adherent of Marius, who, obtaining the consulship BC. 87, along with Gneus Octavius, im-peached Sulla and endeavored to secure the recall of Marius. Being driven from the city of Octavius, he found aid in the other Italian cities, and invested Rome while Marius blockaded it from the sea. On its capture the friends of Sulla were massacred, and Cinna and Marius made themselves consuls (BC. 86); but after the death of Marius the army refused to follow Cinna against Sulla, and put him to death in B.C. 84. Cinnabar (sin'a-bàr), red sulphide ore from which that metal is obtained, occurring abundantly in Spain, Cali-fornia, China, etc. It is of a cochineal-red color, and is used as a pigment under the name of vermilion. See Mercury and Vermilion. Cinnamomum (sin-a-mô'm u m), a genus of plants, nat.

order Lauracea, natives of plants, nat. order Lauracea, natives of tropical Asia and the Polynesian Islands. All the species possess an aromatic volatile oil, and one of them yields true cincerna Cinnamomum (sin-a-mo'm u m), and one of them yields true cinnamon, while others yield cassia.

while others yield cassia. Cinnamon (sin'a-mon), the bark of species of laurel (Cinnamômum zcylani-cum—see Cinnamomum) which is chiefly found in Ceylon, but grows also in Malabar and other parts of the East Indies. The tree at-tains the height of 20 or 30 feet, has oval leaves, p al e-yellow flowers, and yellow flowers, and acorn-shaped fruit. The Ceylonese bark



senate found him at work when they came to summon him to the dictatorship. He rescued the army, defeated the Equi, and returned quietly to his farm. At the age of eighty he was again appointed dictator to oppose the ambitious designs of Spu-rius Mælius. Cinematograph (sin-5-mat'o-gr A f), sisting of a lantern with mechanism for projecting photographs on a screen in such rapid succession that the objects photographed appear to be in motion. These pictures are on a long film which is wound from one spool to another, each

#### Cinnamon

although in its qualities it is much weaker. The leaves, the fruit, and the root of the cinnamon plant all yield oil of considerable value; that from the fruit, being highly fragrant and of thick consistence, was formerly made into candles for the sole use of the King of Ceylon.

**Cinnamon-stone**, a variety of gar-mon, hyacinth-red, yellowish-brown, or honey-yellow color, found in Scotland, Ireland, Ceylon, etc. The finer kinds are used as gems.

money-gellow color, found in Scotland, for alterwards distributing and light act of 1885. Hastings and light act act of 1885. Hastings and light act of 1885. Hastings and lis the light act of 1885. Hastings an

Norman kings, on condition of providing a certain number of ships during war, there being no permanent English navy previous to the reign of Henry VII. Each port returned two members to parliament, but after the Reform Act of 1832, Hastings, Dover, and Sandwich alone retained this privilege, Rye and Hythe returning one each, and the re-maining towns none. Sandwich was afterwards disfranchised for corruption, and by the act of 1885. Hastings and Dover were each deprived of a member, and Rye ceased to be a borough. They are, collectively, in the jurisdiction of a lord warden, who receives \$15,000 a year for his sinecure. Cintra (sen'tra), a town of Portugal,

## Circassia

Circuit Courts

**Circassia** (sir-kash'i-a), or TCHEB-region in the southeast of European Russia, lying chiefly on the north slope of the Caucasus, partly also on the south, and bounded on the west by the Black Sea, and now forming part of the lieu-tenancy of the Caucasus. The moun-taina, of which the culminating heights are those of Mount Elbrus, are inter-sected everywhere with steep ravines and clothed with thick forests, and the ter-ritory is principally drained by the K than and its tributaries. Its climate is tem-perate, its inhabitants healthy and long-lived. The people call themselves Adighé, the name *Tcherkess* (robbers) being of Tatar origin. They are divided into several tribes speaking widely-different dialects. While they retained their inde-pendence their government was of a patriarchal character, but every free Cir-cassian had the right of expressing his opinion in the assemblies. They pos-sessed none but traditional annals and laws. Polygamy was permissible in theory, but not common. The duties of hospitality and vengeance were alike binding, and a Spartan morality existed in the matter of theft. Their religion, which is nominally Moslem, is in many cases a jumble of Christian, Jewish, and heathen traditions and ceremonies. As a race the Circassians are comely, the men being prized by the Russians as warriors, and the women by the Turks as inmates of the harem, a position generally desired by the women themsives. The early history of Circassia is obscure. Between the 10th and 13th centuries it formed Circassia (sir-kash'i-a), or TCHEB-KESSIA, a mountainous and the women by the Turks as inmates circle is round by multiplying this num-of the harem, a position generally desired ber by the square of the radius. Thus by the women themselves. The early the area of a circle of 2 feet radius is history of Circassia is obscure. Between  $3.14159 \times 4$ . or 12.56036 square feet the 10th and 13th centuries it formed approximately. For trigonometrical cal-a portion of the empire of Georgia, but in 1424 the Circassians were an inde-pendent people, and at war with the grees, each degree is divided into 60 Tatars of the Crimea, etc., to whose khans, however, some were occasionally tributary. In 1705 the Tatars were de-feated in a decisive battle, but shortly after the territorial encroachments of the gan, and in 1829 the country was formally annexed by them. A long and heroic re-sistance was made by the Circassians un-tribes of the Circassian stock remain. The Circassians, properly so called, have been estimated to number from 500,000 **Circe** (size-ssio), a fabled sorceress of the island of *Aze*, represented by Homer as having converted the companions of Usyses into swine after causing them for the purpose.

Circuit Courts to partake of an enchanted beverage. Ulysses under the guidance of Hermes compelled her to restore his companions, and afterwards had two sons by her. Circensian Games (s i r -sensi-an). See Circows. Circinate (sir'si-nāt) in botany, said of leaves or fronds, as those of ferns, that are rolled up like a watch-spring before expanding. Circle (sir'ki), a plane figure con-tained by one line, which is called the circumference, and is such that all straight lines drawn from a certain point (the center) within the figure to the circumference are equal to one an-other. The properties of the circle are investigated in books on geometry and trigonometry. Properly the curve be-longs to the class of conic sections, and is a curve of the second order. A great circle of a sphere is one that has its center coinciding with that of the sphere. The celebrated problem of 'squaring the circle. It is not possible to do so. All that can be done is to express approsi-mately the ratio of the length of the diameter, and to deduce the area of the figure from this approximation. If the diameter be called unity, the length of the circle is found by multiplying this num-ber by the square of the circle is 3.1415926335...; and the area of the figure from this approximation. If the diameter be called unity, the length of the circle is found by multiplying this num-ber by the square of the circle is 3.14159 × 4. or 12.56838 square feet approximately. For trigonometrical cal-culations the circumference of the circle is divided into 360 equal parts called de-grees, each degree is divided into 60 seconda. Circle, MURAL. See Mural Circle.

### Circular Notes

Circular Notes (sir'kū-lår), notes or letters of credit fur-

Circumcision

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## Circumnavigation

source. Whatever its origin, the rite is confined to no single race. It was practised by the Astecs and other peoples of Central America, and is still to be found among tribes on the Amazon, among the Australian tribes, the l'apuans, the inhabitants of New Cale-donia, and those of the New Hebrides. In Africa it is common among the Kaffirs and other tribes widely removed from Semitic influence. It is practised also by the Abyssinian Christians, and although not enjoined in the Koran has been adopted by the Mohammedans on the example of Mohammed himself. It was

and semiter influence. At is practised also by the Abyssinian Christians, and although not enjoined in the Koran has been adopted by the Mohammedans on the example of Mohammed himself. It was possibly in its origin a sacrifice to the deity presiding over generation, though a new symbolic significance according to the stage of their spiritual development. Three was able to be stage of their spiritual development of a new symbolic significance according to the stage of their spiritual development. Three stage of their spiritual development. Circumcisions is also the name of a fast, in opposition to the pagan feast on that day in honor of Janus.
Circumnavigation (sir-kum-navification) (sir-kum-site) (sir-kum-navification) (sir-kum-site) (sir-kum-site)

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Circumstantial Evidence. dence.

Circumvallation (va-lä'shun), or LINE OF CIRCUM-VALLATION, in military affairs, a line of field-works consisting of a rampart or parapet, with a trench surrounding a besieged place, or the camp of a besieging army.

held-works consisting of a rampart or parapet, with a trench surrounding a besieged place, or the camp of a besieging army. **Circus** (sér'kus), among the Romans, a nearly oblong building with-out a roof, in which public chariot-races and exhibitions of pugliism and wrestling, etc., took place. It was rectangular, ex-cept that one short side formed a half-circle; and on both sides, and on the semicircular end, were the seats of the spectators, rising gradually one above an-other, like steps. On the outside the circus was surrounded with colonnades, galleries, shops, and public places. The largest of these buildings in Rome was the Circus Maximus, capable, according to Pliny, of containing 20,000, and ac-cording to Aurelius Victor, 385,000 spectators. At present, however, but few vestiges of it remain, and the circus of Caracalla is in the best preservation. The games celebrated in these structures were known collectively by the name of *ludi circenses*, circensian games, or games of the circus, which under the emperors attained the greatest magnificence. The principal games of the circus were the *ludi Romani* or magni (Roman or Great Games), which were celebrated from the 4th to the 14th of September, in honor of the great gods, so called. The passion of the common or poorer class of people ?er these shows appears from the cry with which they addressed their rulers— Panem ct circenses? (bread and the games!). The festival was opened by a splendid procession went round once in a circle, the sacrifices were performed, the magistrates, senate, priests, augurs, vestal virgins, and athletes took part, carrying with them the images of the great gods, the Sibylline books, and some-times the spoils of war. On reaching the ircus the procession went round once in a circle, the sacrifices were performed, the spectators took their places, and the games contests. S. The Trojan games, prize contests on horseback, re-vived by Julius Cæsar. 4. The combats with wild beasts, in which beasts fought with wild beasts, in whi

Circus

#### Cirencester

by compression destroys the true struct-ure of the organ attacked. It is very frequent in the liver as a consequence of spirit-drinking; and hence the term 'drunkard's liver.'

'drunkard's liver.' Cirripedes (sir'i-pēdz), CIREIPE'DIA, or CIREHOP'ODA, a class of marine invertebrate animals, having a soft body provided with very long, ar-ticulated, tendril-like limbs (cirri), which are protruded and rapidly withdrawn within the multivalve shell. They are crustaceans which have undergone retro-grade metamorphosis, being free-swim-ming in the larva form, but becoming after a time attached by the head. When adult they are affixed to some substance, either set directly upon it, as in the genus Balanus; or placed on a foot-stalk, as the barnacle; or sunk into the supporting substance, as the whale-barnacle. See Balanus, Barnacle.

substance, as the whale-barnacle. See Balanus, Barnacle. Cirrus (sir'rus; in plural CIBRI), the tendril of a plant by means of which it climbs, usually a modified leaf or the prolongation of a midrib.



Cist, found near Driffield, Yorkshire.

right, and covered by similar flat stones. Such cists are found in barrows or mounds, enclosing bones. In rocky dis-tricts cists were sometimes hewn in the rock itself.

rock itself. Cistaceæ (sis-tū-se-č), a natural order of polypetalous exogens, con-sisting of low, shrubby plants or herbs with entire leaves and crumpled, gener-ude a balsamic resin, such as ladanum, from a Levant species of Cistus. See Cistus.

Cirrus (sir'us; in plural CIBRI), the Cistus. Cirrus (sir'us), the capital of the ancient Cirta (sir'ta), the capital of the ancient defeat of Jugurtha it passed into the of St. Benedict. The Cistercians led a se-hands of the Romans, and was restored verely ascetic and contemplative life, and by Constantine, who gave it his own name. See Constantine. Cisalpine (siz-al'pin) REPUBLIC, a republic under a high council of twenty-state set up in 1797 by five members, with the Abbot of Citeaux the foor Germany as an independent power at the chief monasteries were La Ferté, Pon-Peace of Campo Formio. It comprised tigny, ('lairvaux (founded by the cele-Austrian Lombardy, together with the brated St. Bernard in 1115' and Mori-

#### Cistus

mond. In France they called themselves Bernardines in honor of St. Bernard. Among the fraternities emanating from them the most remarkable were the Bare-footed monks, or Feuillants, and the nuns



Cistercian.

of Port Royal, in France; the Recollets, or reformed Cistercians; and the monks of La Trappe. There were a hundred Cistercian houses in England at the disor reformed Cistercians; and the monks of La Trappe. There were a hundred Cistercian houses in England at the dis-solution of monasteries. The general fate of religious orders during the French revolution reduced the Cistercians to a few convents in Spain, Poland, Austria, etc. There are still two or three houses in the British Isles. The Cister-cians wear white robes with black scapularies. Cistus (sis'tus), the rock-rose, a genus order Cistaceæ, natives of Europe, or of the countries bordering the Mediter-ranean. Some of them are beautiful regreen flowering shrubs, ornamental in gardens or shrubberies. Gum ladanum is obtained from C. creticus and C. Citronella (sit'ron-cl-a), OIL, an oil

loftiest summit is 4620 feet in height. On its northern slope stood the city of Platea.

Platea. Cithern, or CITTERN sit'ern, Latin cithera, Greek kithara), an old instrument of the guitar kind, strung with wire instead of gut. Its eight strings were tuned to 4 notes, G, B, D, and E. It was frequently to be found in barbers' shops for the amusement of the waiting customers. Cities of Refuce

Cities of Refuge,



six out of the forty- Kensington Mu-eight cities given to the seum. tribe of Levi in the division of Canaan, set apart by the law of Moses as places of refuge for the manslayer or accidental homicide. Their names were Kedesh, Shechem, and Hebron on the west side of Jordan; and Bezer, Ramoth-Gilead, and Golan on the east. Cities of the Place

See Sodon and Gomor Cities of the Plain. rah.

is obtained from C. creticus and C. Citrus. ladaniferus. Citadel (sit'a-del), a strong fortress Keep the inhabitants in subjection, or to at Singapore and in Ceylon. It is used form a final point of defense in case of for scenting soap and driving away an attack of enemies.

an attack of enemies. Citation (si-ta'shun), a summons or person to appear in a court as a party or witness in a cause. Citeaux (sē-tō), a village of Eastern France, dep. Côte-d'Or. See Cistercians. Cithæron (si-thē'ron), the modern leaf-like stalk; by having the stamens Cithæron (si-thē'ron), the modern leaf-like stalk; by having the stamens Greece, which, stretching N. W., separates regular bundles, and by yielding a pulpy Buotia from Megaris and Attica. Its fruit with a spongy rind.—Citrus médico

### Citrus

### Cittadella

is the citron. Other species are the lemon (Citrus limonum), the sweet orange (Citrus aurantium), the bitter orange (Citrus vulgāris), the shaddock (Citrus decumāna), and the forbidden fruit (Citrus paradīsi), sometimes used as an ornamental addition to dessert. The genus Citrus furnishes the essential oils of orange and lemon peels, of orange flowers, of citron peel, of bergamot, and oil of orange leaves—all much esteemed in perfumery. See Lemon, Orange, etc. **Cittadella** (ch ēt -t ä. dā'la), an old town of North Italy, prov-ince of Padua, surrounded by walls. Pop. 3027. **Cittá-di-Castello** (-dē kās'tel-o), a is the Other species are the citron.

Prop. 3027.
Cittá-di-Castello (-dē kās'tel-ō), a town of I taly, province of Perugia, on the Tiber, the seat of a bishop, with a cathedral containing valuable paintings. Pop. 6006.
Città-Vecchia (-vek'i-å, 'old city').
Città-Vecchia a fortified town of Malta, near the center and almost on the highest point of the island, 7 miles w. s. w. Valetta. The rise of the latter town has almost ruined it, and its magnificent houses and palaces are almost deserted. It has a large cathedral and interesting catacombs. The ancient palace of the Grand Masters of the Order of Malta also remains. Pop. (1901) 7515.
Cit'tern, See Cithern.

Cit'tern. See Cithern.

City (sit'i; Latin, civitas) in a gen-eral sense, a town holding, from extent of population, favorable situation, or other causes, a leading place in the community in which it is situated. Popularly, also, it is used to designate the old and central nucleus as distin-guished from the suburban growths of large towns. The ecclesiastical sense of the term city is a town which is, or has been, the see of a bishop. This seems to be the historical use of the term in Eng-land, and still possesses some authority be the historical use of the term in Eng-land, and still possesses some authority there, but to a considerable extent it has been superseded by the wider one. In America the application of the term is dependent upon the nature and extent of the municipal privileges possessed by corporations, and a town is raised to the dignity of a city by special charter. Generally the term implies the existence of a mayor at the head of the munici-pality. pality

on the west side of the island of Minorca. Chief industries: weaving woolen fabrics, expressing oil and wine, and husbandry. Pop. 8645.

Pop. 8645. Ciudad-Real (thi-ö-dåd-rā-ål', 'royal town'), a town of Spain, capital of the province of same name, on a low plain near the Guadiana, 100 miles south of Madrid. The principal edifice is the Church of Santa Maria, a magnificent structure, though consisting only of a single nave. Pop. 15,327.— The province occupies the south ex-tremity of New Castile, between the parallel ranges of the Sierra Toledo and Sierra Morena; area, 7840 square miles. Pop. 321,580.

**Ciudad-Rodrigo** (thi-ö-dåd-rod-re'gö, Rodericktown'), a fortress in Spain, in Leon, on the river Aguada, was a place of considerable im-portance in early Spanish history as a fortress on the Portuguese frontier, and was of some importance in the Beniandry was of some importance in the Peninsular war, being taken by storm by the Brit-ish under Wellington, after a siege of eleven days. The Cortes gave Welling-ton the title of Duke of Ciudad-Rodrigo. Pop. 8030.

Cive (siv). See Chive.

**Cive** (siv). See *Uhive*. **Civet** (siv'et; *Viverra*), a genus of carnivorous mammals found in N. Africa, and in Asia from Arabia to Malabar and Java, and distinguished by having a secretory apparatus in which collects the odoriferous fatty substance known as *civet*. The animal, which in form is intermediate between the weased and the fox, and from 2 to 3 feet long by 10 inches high, is of a cinereous color, tinged with yellow and marked by dusky spots disposed in rows. They are nocturnal, and prey upon birds and small dusky spots disposed in rows. They are nocturnal, and prey upon birds and small animals, and may be considered as form-ing the transition from the musteline or marten kind to the feline race. The genus has been divided into two sub-genera—the true circts, having the pouch large and well marked; and the genets, in which there is a simple depression in-stead of a pouch. Two species of the first and eight of the second are at present known, the chief scent-yielding species being the common civet (Viverre circtia) of N. Africa and the zibeth (V. zibetha) of Asia. The pouch is situated between the anus and the genitals. and the odorous matter obtained from it is, when good, of a clear yellowish or brown pality. Ciudad (thi-ü-dåd'), the Spanish word between the anus and the genitals, and for city, appearing in many the odorous matter obtained from it is, names of Spanish places. Ciudad Bolivar (thi-ü-dåd' bo-lž'- color. The smell is powerful and very vür). See Angos- offensive, but when diluted with oil or tura. Ciudadela (thi-ü-dà-dā'là), a walled The American variety of the civet (civet city and seaport, Spain, cat) is easily tamed.

## Civic Crown

Civic Crown (sivik), among the Ro-mans, the highest mili-tary reward, assigned to him who had preserved the life of a citizen. It bore the inscription 'Ob cives servatum,' that is, 'for saving a citizen,' and was made of oak leaves. The person who received the crown wore it in the theater, and sat next the senators, and when he came in all the assembly rose up as a mark of respect. respect.

respect. **Civics** (civ'iks), the science that treats of citizenship and the relations between citizens and the government. It embraces ethics, or social duties; civil law, or governmental methods; econom-ics, or the principles of finance and ex-change; and the history of municipal de-velopment velopment.

Cividale (chē-vē-dā'lā), a walled town, Italy, Venetia, 8 miles E. N. E. of Udine. It has a large cathedral dat-ing from the eighth century. Pop. 4174. Civil Death. See Death, Civil.

**Civil Death.** See Dcata, Civil. **Civilization** (siv-il-iz-a'shun), the sum at any given time of the attainments and tendencies by which the human race or any section of it is removed from the savage state. The history of progress in civilization is usually presented from one of two points of view—the first conceiving the race as starting from a high civilization, to which in point of intellectual and moral power it has yet to return; the second viewing the civilization of any period as the re-sult of a constant and increasingly-suc-cessful stream of effort upwards from an origin comparable with the condition of the lower animals. The latter is the prevailing scientific theory, which finds the secret of progress in the interaction of function and environment. According to it, primitive man, at first feeding on wild fruits and berries, and sheltering himself under overhanging rocks or caves, entered upon the stone age. in which, as the contemporary of the mammoth and cave-bear, he made himself sharp-edged tools by chipping the flakes of flint found in the drift under gravel and clay. In tools by chipping the flakes of flint found in the drift under gravel and clay. In the newer stone age he learned the art of polishing these rough implements, with which he cut down trees to make cances, killed wild animals for food, and broke their bones for marrow, or shaped them into weapons. Fire he turned to account to hollow out trees, to cook his food, to fashion clay ware. Artificial means of shelter were constructed by piling rude huts of stones, by digging holes in the ground, or by driving piles into the beds of lakes and raising dwellings on them. The artistic instincts found expression in

drawings of animals scratched upon bone or slate. The discovery of metals con-stituted a great step in advance. Gold and copper came early into use, and bronze was soon discovered, though a long time passed before iron was smelted and substituted for bronze where hardness was required. Gradually the roving sav-age became a nomadic shepherd and herdsman, or a tiller of the soil, accord-ing to his environment. The practice of barter was in part superseded by the be-ginnings of some sort of currency. Ges-ture language gave place in part to an enlarged vocabulary, and picture-writing to the use of phonetic signs. In the meantime man had begun to question him-self and the world on profounder issues, entering upon the myth-making age, in which was projected outwards on the chief phenomena of nature some shadow of his sown personality. The worship of the sun, moon, and stars, a faith in a future life, the worship of dead ancestors, fetishes, animals, etc., the belief in magic and witcheraft, all sprang into being. Prayer came spontaneously to him; the idea of propitiation by sacrifice would arise from his dealings with his fellows and his foes; the sacred books began to shape themselves. Tribal and national relations, arising from ties of family aud exigencies of defense, were cemented by unity of faith, and the higher social unit began to perfect itself under the rule of the patriarch, the bravest warrior, etc. With varying needs, arising from diversity the patriarch, the bravest warrior, etc. With varying needs, arising from diversity etc. of environment, distinctions of nationality became more and more emphatic, and the bistory of civilization becomes the history of the nation viewed from the standpoint of moral, political, scientific, mechanical, and general intellectual progress.

City Planning, a system now being widely adopted in City Planning, widely adopted in the United States for the betterment and adornment of cities, definite plans being adopted in advance, to be worked up to, so that the development of the cities may be in definite lines. Comprehensive plans of this kind have been made in many cities and in some instances much has been done in carrying them out. An exhibition of such plans was made in the City Hall, Philadelohia in the spring of 1011, and showed that highly encouraging progress was being made, not only in that city, but in many other communities. Civil Law (ins civile), among the

communities. Civil Law (iss cirile), among the Romans the term nearly corresponding to what in modern times is implied by the phrase positive law, that is, the rules of right established by any government. They contradistinguished it

## Civil Law

Civil List

Civil Service penses proper to the maintenance of the nousehold of the sovereign. It was once a principle in England, as in other Teutonic nations, that the monarch was to pay all the expenses of government, even including those of the army, from the possessions of the crown, and until the Restoration the whole expense of the government continued to be defrayed out of the royal revenue. In the reign of William, the Commons adopted the principle of separating the regular and domestic expenses of the king from the public expenditure, and establishing a sys-tenatic and periodical control over the latter. The amount voted to the king for mencement of the reign of Queen Anno and the same vote was made at the com-mencement of the reign of Queen Anno and George I. By the beginning of the reign of George II the revenue appropriated to the civil list was found to have pro-duced \$150,000, and this sum was voted on the accession of George II. Besides the regular vote, grants had been fre-quently made to defray debts incurred in which the crown lands were included, these were surrendered, and it was fixed at \$4,000,000, but instead of being which the crown lands were included, these were surrendered, and it was fixed out of appropriated revenues in which the crown lands were included, these were surrendered, and it was fixed out of spropriated revenues in which the crown lands were included, these were surrendered, and it was fixed out of syst50,000. Other varia sign. In the reign of William IV the ist mas placed at \$2,550,000. Including a pension list of \$375,000. Other varia of George V. Many continental states have a fixed civil list; that of Russia is \$7,050,000; of Turkey, \$4,600,000; of Austria, \$3,650,000; of Prussia, \$3,375, 00, to which an additional grant of \$7,050,000 has recently been added mating a total of \$4,500,000.

is used also to embrace all the rules re-making a total of \$4,500,000. lating to the private rights of citizens. Under the term civil late, therefore, in America and Europe, is to be understood not only the Roman law, but also the army and navy. Formerly appointments modern private law of the various count to the civil service in Great Britain were tries; for example, in Germany. Das entirely in the gift of the executive gov-gemeine Deutsche Privatrecht; in France ernment, and were obtained by influence, the Code civil des Français or Code while the bestowal of them was used as Napoléon. In this sense it is chiefly op- a means of gaining parliamentary sup-posed to criminal late, particularly in port on behalf of the government, but in reference to the administration of justice, the civil List, in Britain, formerly the ments in the civil service should (with ernment, with the exception of those of petition.—In the United States civil the army, navy, and other military de-service a system was inaugurated by partments. It is now limited to the ex-President Jackson by which the party in



## **Civil War**

power conferred the various appoint-ments on such of its members as had most influence, or had done it most serv-ice, there being thus usually a great change of officials with each change of president, on the understood principle that 'to the victors belong the spoils.' After 1870 attempts at establishing a bet-ter state of affeirs were made and in After 1870 attempts at establishing a bet-ter state of affairs were made, and in 1883 a bill introducing a system of civil service reform was passed by congress. The act creates a commission, composed of three members appointed by the presi-dent and senate, known as the Civil Serv-ice Commission. They were to provide rules for open competitive examinations for testing the fitness of applicants for the public service. Under the administra-tion of Cleveland and those of the suc-ceeding presidents the competitive sys-tem was greatly extended and it now embraces most of the departments of the government. sovernment.

Civil War. See United States.

Clackmannan (klak-man'an), smallest county the Clackmannan (a la chan all), the Scotland, containing little more than 47 square miles, situate on the north side of the Forth, by which it is bounded 8. W., while on nearly all the other sides it is inclosed by the countries of Perth and Stirling. The north part of the county is occupied by the Ochil Hills, which are largely given up to sheep-farming, but the other portions are comparatively level and exceedingly fertile, yielding large crops of wheat and beans. The minerals are valuable, especially coal, which abounds. There are also more extensive distilleries; woolens are also manufac-

composed a treatise on the four curves of the third order, which, with his sub-sequent *Recherches* sur les Courbes à double Courbure, 1731, procured him a seat in the academy at the age of eight-een. He accompanied Maupertuis to Lanland to assist in measuring an arr seat in the academy at the age of each een. He accompanied Maupertuis to Lapland, to assist in measuring an arc of the meridian, and obtained the materials for his work Sur la Figure de la Terre. In 1752 he published his Théorie de la Lunc, and in 1759 calcu-lated the perihelion of Halley's comet. He died in 1765. Claire (klar), ST., or SANTA CLARA, OBDEE OF, founded in 1212 by a lady of this name, of noble birth, born at Spoleto. Italy, in 1193; died in 1253, and canonized in 1255. It has numerous convents in Europe and America. Clairton (klar'tun), a city, county seat of Clearfield Co., Penn-sylvania, on Susquehanna River, 35 miles N. of Altoona, in a rich farming district. There are various manufactures. Pop. 6204.

6264.

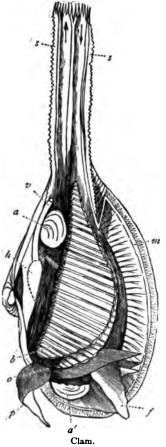
Clairvaux (klår-vö), a village of France, department of Aube, celebrated for its magnificent abbey, founded in 1114 or 1115, by St. Bernard, but suppressed at the revolution. The ex-isting buildings have been converted into an immense house of correction. See an immense Cistercians.

inclosed by the countries of Perth and Stirling. The north part of the county is occupied by the Ochil Hills, which are for curred on the portions are comparatively level and exceedingly fertile, yielding large Glairvoyance (klār-voi'ans; that is clear-see in g'), an alleged faculty by which certain persons are valuable, especially coal, which are said to be able to see things apart altogether from the sense of sight ironworks, and some large breweries and distilleries; woolens are also manufactor, and the solution of the control of mental or spiritual vision apart altogether from the sense of sight. Clam, the common name for the bidrow, and the solution, the control of mental or spiritual vision spart altogether from the sense of sight. Clam, the common name for the bidrow, and the solution, the control of mental or spiritual vision spart altogether from the sense of sight. Clam, the common name for the bidrow, and the solution of the control of mental or spiritual vision spart altogether from the sense of sight. Clam, the common name for the bidrow, and the solution of the control of the clams of market are of two kinds; the hard or round clam (kla'di-um), a genus of (Yeu arcearia). The former are known in New England by the Indian name 'quolog'; they live on sandy bottoms, and are obtained by raking or dredging. The Mariacus, or twig-rush, is a British perennial with kelled leaves, having a sharp point and prickly serratures. It is well for that the flore (klā-rāk), a town of France, department Lot - et-Garonne, on the Lot. It was the first town in the south of France to declare in favor of the shells, is found deeply buried in mud or sund near shore, and obtained by digring. The largest bivalve molluse known the Reformation. Pop. about 3000.
Clairaut (klā-rāk), a town of France, department Lot - et-Garone, or sund near shore, and obtained by the formation. Pop. about 3000.
Clairaut (klā-rāk). In his eleventh year he Yonne. It has a fine church, founded in the solut are the maticia

### Clamecy

Clan

Wood-rafts for the supply of Paris irewood are made up here, and down the Yonne and Seine. Pop. 1497. firewood with with firewood are made up here floated down the Yonne and Seine. 5313.



Clam. Anatomy of a Bivalve Molluse, Mya arenaria (after Woodward). The left valve and mantle-lobe, and half the siphons are removed. s.s. Rem-piratory siphons, the arrows indicating the di-rection of the currents: a a', Adductor muscles; b, Gills: h, Heart: o, Mouth, surrounded by (p) labial palpi; f, Foot; r, Anus; m, Cut-edge of the mantle.

Viap-net was frequently formed of that of the original progenitor with affix mac (son); thus the MacDonalds were the sons of Donald, and every individual of this name was considered a descendant of the clan, and a brother of every one of its members. The chief exercised his author-ity by right of primogeniture, as the father of his clan; the clansmen revered and served the chief with the blind devo-tion of children. The clans each occupied a certain portion of the country, and hostilities with neighboring clans were ex-tremely common. Next in rank to the chief were a certain number of persons, commonly near relations of the chief, to whom portions of land were assigned during pleasure or on short leases. Each of these usually had a subdivision of the clan under him, of which he was chief-tain, subject, however, to the general head of the sept. The jurisdiction of the chiefs was not very accurately defined, and it was necessary to consult, in some measure, the opinions of the most in-fluential clansmen and the general wishes of the whole body. It was latterly the policy of the government in Scotland to oblige the clans to find a representative, or who were unwilling to do so, were called proscribed and persecuted clan was that of the ancient clan MacGregor, who long continued to hold their lands by the cow a glaive, or right of the sword. The re-bellions of 1715 and 1745 induced the substitution of the chiefs was therefore abol-ished, the people disarmed, and even com-pelled to relinquish their national dress. Few traces of this institution now remain, screept such as have a merely sentimental character; thus all those who possess the same clan name may still talk of their chief, though the latter have now neither and nor influence. Clapham (clap'am), a southern sub-borough of London. Clapham Common

Clapham (clap'am), a southern sub-urban district and parl borough of London. Clapham Common is a fine open space of over 200 acres. Pop. 58,596.

(p) labial palpi; f. Foot; r. Anus; m. Cut-edge of Clap-net, a ground-net used by bird-the mantle. Clan (Gaelic, a tribe or family), among equal parts about 12 yards long by 21/ the Highlanders of Scotland, con- wide, and each having a slight frame. sisted of the common descendants of the They are placed about four yards apart, same progenitor, under the patriarchal and are pulled over by a string so as to control of a chief, who represented the inclose any birds on the intervening common ancestor. The name of the clan space.

#### Clapperton

Clapperton (clap'er-tun), HUGH, an Annan, Dumfriedblire, in 1788. He entered the merchant service, but was impressed into the navy, in which he be-came a lieutenant in 1816. He then ac-companied Dr. Oudney and Lieutenant Denham to Africa, where he remained till 1825, returning with valuable informa-tion, although the disputed question of the course of the Niger was left undecided. On his return to England Clapperton re-ceived the rank of captain, and im-mediately engaged in a second expedition, to start from the Bight of Benin. Leav-ing Badagry, Dec., 1825, he penetrated to Katunga, within thirty miles of the Quorta or Niger, but was not permitted to visit it. At Soccatoo the Sultan Bello refused to allow him to proceed to Bornu, and detained him a long time in his cap-ital. The disappointment preyed upon him, and he died, April, 1827, at Chun-gary, a village near Soccatoo. He was the first European who traversed the whole of Central Africa from the Bight of Benin to the Mediterranean. Claqueurs (k14 & e w rz), the name pany of persons paid for applauding theatrical performances, more especially on the production of any new piece. They were sometimes called *chevaliers-du-lustre*.

from mustering in great force near the center of the pit, below the chandelier. Clara, SANTA. See Claire.

Clara, SANTA. See Claire. Clare, (klär). a maritime county of Ireland, province Munster, be-tween Galway Bay and the Shannon estuary; area, 827,994 acres, of which 140,000 are under tillage. The surface is irregular, rising in many places into mountains of considerable elevation, particularly in the E., w., and N. W. dis-trict. Oats, potatoes, wheat, and barley are the principal crops. The chief min-erals are limestone, lead. and slate, but the produce of the county is almost wholly agricultural. Lakes are numerous, but generally of small size, and the county is deficient in wood. The salmon-fisheries are valuable, and there are immense oyster-beds in some places. Capital, Ennis. It has lost largely in population through the miserable condition of the peasantry. Pop. in 1841, 286,394; in 1901, 112,109.

Life and Scenery met with a favorable reception, and the issue of his Village Minstrel in 1821 won him many friends. A subscription furnishing him with \$225 ennually was however dissingted by A subscription furnishing him with \$225 annually was, however, dissipated by 1823, and his Shepherd's Calendar (1827), which he hawked himself, was not a suc-cess. He brought out a new work, the *Rwral Muse*, in 1835, but became insane shortly afterwards, the remainder of his life, from 1837 to 1864, being passed in the Northampton Lunatic Asylum. Clare was a genuine poet, and his pictures of rural life are eminently truthful and pleasing. pleasing.

Clare Island, an island of Ireland, County Mayo. It has

pleasing. Clare Island, an island of Ireland, a lofty lighthouse. Claremont, (klar'e-mont), a town of miles W. N. W. of Concord, on the Sugar River, the falls of which supply large water-power, and feed to extensive manu-fuctures of cotton, woolen, paper, machin-ery, etc. Pop. (1920) 9524. Clarence (klar'ens), Genese, DUKE Clarence (klar'ens), Genese, DUKE Clarence (klar'ens), Genese, DUKE Clarence or, son of Richard, Duke of York, and brother of Edward IV, King of York, and brother of Edward IV, King of York, and brother of Edward IV, King of Mary and in 1462 lord-lieutenant of Ireland, but afterwards joined the disaffected War-wick, and married his daughter. On the eve of battle he rejoined his brother, and was afterwards involved in a quarrel with his brother Richard, who had married Warwick's younger daughter, about the inheritance of their father-in-law. On the death of his wife Clarence sought the hand of Mary of Burgundy, but Edward interposed and a serious breach ensued. A gentleman of the household of Clarence having at this time been condemned for using necromancy against the king, Clar-ence interfered with the execution of the sentence. He was impeached by the king in person, condemned in 1478, and se-cretly made away with in the Tower. The tradition that he was drowned in a butt of malmsey wine is unsupported by evidence. Clarendon (klar'en-dun), Constituevidence.

generally of small size, and the county is evidence. deficient in wood. The salmon-fisheries are valuable, and there are immense oyster-beds in some places. Capital, Ennis. It has lost largely in population (January, 1164), at a council of prelates through the miserable condition of the and barons held at the village of Claren-peasantry. Pop. in 1841, 286,394; in don, Wiltshire. These laws, which were finally digested into sixteen articles, were finally digested into sixteen articles, were Helpstone, near Peterborough, where his enacted as such by the council. but they father was a farm-laborer. He led a really involved a great scheme of adminis-rambling, unsteady life until 1818, when trative reform in the assertion of the he was obliged to accept parish relief. supremacy of the state over clergy and In 1820 his *Pocms Descriptive of Rural* laity alike. The power of the ecclesi-

#### Clarendon

not less to be regarded as containing the germ of the ecclesiastical policy of Henry II. **Clar'endon**, EDWARD HYDE, EARL OF, England, son of a private gentleman of Dinton, Wilts, where he was born in 1608. After studying at Oxford and at the Mid-dle Temple he married, in 1629, the daughter of Sir George Ayliffe, and, in 1632, Frances, daughter of Sir Thomas Aylesbury. He commenced his political career in 1640 as member for Wootton-Basset, and was again returned to the Long Parliament (November, 1640) by the borough of Saltash, at first acting with the more moderate of the popular party, but gradually separating himself from the democratic movement until, by the autumn of 1641, he was recognized as the real leader of the king's party in the house. Upon the breaking out of the civil war he joined the king at York, was knighted, made privy-councilor, and appointed chancellor of the exchequer. After vainly attempting to bring about a reconciliation between the contending parties he accompanied Prince Charles to Jersey, where he began his *History of the Rebellion*, and wrote answers in the king's name to the manifestores of the parlia-ment. In September, 1649, he rejoined (harles at The Hague, and was sent by him on an embassy to Madrid. Soon after his return he resumed the business of the exiled court, first at Paris, and afterwards at The Hague, where, in 1657. ('harles H appointed him lord-chancellor. After Cromwell's death he contributed more than any other man to promote the head of the English administration. In 1660 he was elected chancellor of the University of Oxford, and in 1661 was created Baron Hyde, Viscount Cornbury, and Earl of Clarendon. The marriage of the Duke of York with his daughter, Anne Hyde, confirmed for a time his power, but in 1663 Lord Bristol made

astical courts was restricted, the crown an unsuccessful attempt to impeach him, secured the right of interference in his influence with the king declined, and elections to ecclesiastical offices, appeals his station as prime-minister made the to Rome were made dependent on the nation regard him as answerable for the king's leave, ecclesiastical dignitaries ill success of the war against Holland, were deprived of their freedom to leave the sale of Dunkirk, etc. The king's dis-the country without the royal permission, pleasure deepened when his plan of repu-etc. Becket signed them, but retracted diating his wife and marrying the beauti-his signature on the refusal of the Pope ful Lady Stuart was defeated by Claren-Alexander III to countenance them. don, who effected a marriage between Becket's murder followed, and to effect this lady and the Duke of Richmond. a reconciliation with the pope Henry The king deprived him of his offices, an promised the amendment of the Con-impeachment for high treason was com-cordingly modified in 1176 at Northamp-plet to seek refuge in Calais. He lived not less to be regarded as containing the germ of the ecclesiastical policy of Henry II. Clar'endon. EDWARD HYDE, EABL OF. an unsuccessful attempt to impeach him, his influence with the king declined, and his station as prime-minister made the nation regard him as answerable for the ill success of the war against Holland, the sale of Dunkirk, etc. The king's dis-pleasure deepened when his plan of repu-diating his wife and marrying the beauti-ful Lady Stuart was defeated by Claren-don, who effected a marriage between this lady and the Duke of Richmond. The king deprived him of his offices, an impeachment for high treason was com-menced against him, and he was com-menced against him, and he was com-ment to seek refuge in Calais. He lived six years at Montpellier, Moulins, and Rouen, where he died in 1674. His re-mains were afterwards removed to West-minster Abbey. During his second exile he completed his *History of the Rebellion* in autobiographical form, wrote a bio-graphical Continuation in defense of his administration, and sought to vindicate Lord Ormonde by a *History of the Re-bellion in Ireland.* 

administration, and sought to vindicate Lord Ormonde by a History of the Re-bellion in Ireland. Clarendon, GEORGE WILLIAM FEED-eldest son of the Hon. George Villiers. He was educated at Cambridge, entered the civil service at an early age, and in 1820 was attached to the embassy at St. Petersburg. In 1834, as minister to Madrid, he aided in negotiating the Quadruple Alliance. He succeeded to his uncle's title in 1838 and in 1840, was appointed lord privy-seal, and in October chancellor of the duchy of Lancaster. He supported the repeal of the corn-laws and the reduction of duties, and in 1846 was appointed president of the board of trade in Lord J. Russell's ministry, and in the following year lord-lieutenant of Ireland. He resigned with his party in 1852, when the Earl of Derby took office, but soon after the formation of the Aberdeen ministry he was appointed to the foreign secretaryship, which he held until Jan., 1855. After a few weeks' interval he returned to the post under Lord Palmerston, and retained it until 1858, being one of the signatories of the Treaty of Paris. In 1861 Clarendon was sent as ambassador-extraordinary to the coronation of the King of Prussia, and in 1864 was again appointed chancellor of the duchy of Lancaster. In the follow ing administration, under Russell, he re-sumed the direction of the foreign secre-tary in the Gladstone ministry till his death, in June. 1870. Clarendon Press, the press of the University of Ox-

Clarendon Press, the press of the University of Ox-



#### Claret

Here all the Clark,

ford, established in 1586. Here all the printing for that university is done. Clarct (klar'et), the name given in Britain, America, etc., to the red wines of Bordeaux. A large quantity of wine produced in California is also called by this name, and is of a very ex-cellent quality. The name has become generic. See Bordelois Wines.

**Clarichord** (klar'i-kord), or CLAV'I-cHORD, an old keyed in-strument, somewhat in the form of a spinet. Sometimes called the *dwnb spinci*.

spinet. Sometimes called the dumo spinet. Sometimes called the dumo spinet. Clarification (klar-i-fi-kā'shun), or the separation of the insoluble particles that prevent a liquor from being transparent, may be performed by depuration, in which the liquor is al-lowed to stand until the particles are precipitated, and then decanted; by filtra-tion, or straining through wood, sand, charcoal, etc.; or by coagulation, in which the albumen contained in or added to the liquid is solidified and precipitated, the liquid is solidified and precipitated, the extraneous substances being precipitated with it. Now commonly effected by centrifugal machines. See also Fining.

Clarinet (klar'i-net) or CLABIONET, a wind-instrument of the reed by holes and keys. Its lowkind, played by holes and keys. Its low-est note is E below the F clef, from which it is capable, in the hands of good per-formers, of ascending more than three oc-taves. The keys of C and F, however, aro those in which it is heard to most advan-tage, though there are B flat, A, D, B, and G clarinets.

Clarinets. Clarinets. Clarinets. Clarine (klar'i-un), a musical instru-ment of the trumpet kind, with a narrower tube and a higher and shriller tone than the common trumpet. Clark, ALVAN, born in Ashfield, Mas-sachusetts, in 1808; died 1887. He gained distinction as a skilful maker of telescopes and achromatic object-glasses. —His son, ALVAN GRAHAM CLABK (1832-His son, ALVAN GRAHAM CLABK (1832-1897), succeeded him in business and completed the Lick 36-inch refracting tele-scope in 1886 and the Yerkes 40-inch in 1897. He made many discoveries in double stars. Clark. CHAMP (1850-1001)

double stars. Clark, CHAMP (1850-1921), an Amer-ican Congressman, born in An-derson Co., Kentucky. He was president of Marshall College, West Virginia, 1873-74, and later engaged in law practice in Missouri. He was elected to Congress from Missouri in 1803, 1897, and from 1897 served continuously. He led in the Baltimore Democratic national convention of 1912 for the presidential nomination on 29 ballots. He was chosen Speaker of the House in 1911. House in 1911.

CHARLES HEBER, an American Clark, CHARLES HEBER, an American humorist, born at Berlin, Md., July 11, 1841. Under the pen-name of Max Adeler he was the author of several amusing books. His works include Out of the Hurly Burly, Captain Bluitt, In Happy Hollow, The Quakeress, etc. He died in August, 1915. Clark, GEORGE ROGERS, born in Vir-ginia in 1752, settled in 1776 in Kentucky, where he soon became a leader among the settlers. In December, 1777, he secured approval of a plan to conquer the British posts in the North-

1111, he secured approval of a plan to conquer the British posts in the North-west. In 1778 he invaded the Illinois country, and completed the conquest in 1779. As a result England gave up the Northwest Territory by the treaty of 1783. Died in 1818. Clark, WILLIAM. See Lewis and Clark. The security of the treaty of Clark.

Clark University, an educational institution at Worcester, Massachusetts, chartered in 1887, and devoted exclusively to post-graduate work in the sciences. It was founded by Jonas G. Clark. There is an institution of the same name at Atlanta, Georgia, founded in 1870, and confined to colored students.

colored students. Clarke, CHARLES COWDEN, an English writer, born at Enfield, Mid-dlesex, in 1787. He was one of the minor members of the Shelley, Keats, and Leigh Hunt group. His publications include his Hundred Wonders (1814). Adam the Gardener (1834). Shakespere Characters (1863), and Molière Characters (1865). He is beat known, however, by the edition of Shakespeare, which he annotated in conjunction with his wife, and by the Shakespere Key (1879). He died in 1877. 1877.

Clarke, EDWARD DANIEL, an English Clarke, EDWARD DANIEL, an English traveler and mineralogist, born in Sussex in 1769, entered Jesus College, Cambridge, in 1786: and was made a fellow in 1798. In 1799 he set out on an extensive tour through Europe, Asia Minor, Syria, Egypt, etc., securing for English institutions many valuable ob-jects, such as the celebrated manuscript of Plato's works, with nearly 100 others, a colossal statue of the Greek goddess Demeter (Ceres), and the famous sar-cophagus of Alexander the Great. In 1807 he commenced a course of lectures on mineralogy at Cambridge, and in 1808 a professorship of mineralogy was insti-tuted there in his favor. He died in 1822. A complete edition of his works appeared in 1819-24, under the title of Travels in Various Countries of Europe, Asia, and Africa. Africa.

Clarke

#### Clarke

Clarke, SAMUEL, an English theo-Clarke, logical and philosophical writer, born in 16:5 at Norwich, where his father was an alderman; educated at Caius College, Cambridge. He became chaplain to Dr. More, bishop of Norwich, and between 1699 and 1701 published *Essays on Baptism, Confirmation, and Repentance, replied to Toland's Amyntor,* and issued a paraphrase of the Gospels. He was then presented with two livings, and in 1704 and 1705 twice delivered the Boyle lectures at Oxford on The Being and Attributes of God, and on The Evi-dences of Natural and Revealed Religion. In 1706 he published a letter to Mr. Dod-well on the Immortality of the Soul, and a Latin version of Newton's Optics. He was then appointed rector of St. Bennet's, London, and shortly afterwards rector of St. James' and chaplain to Queen Anne. In 1712 he edited Casar's Com-mentarics, and published his Scripture Doctrine of the Trinity, which became a subject of much controversy and of com-plaint in the Lower House of Convoca-tion. His chief subsequent productions were his discussions with Leibnitz and Collins on the Freedom of the Will, his Latin version of part of the Hiad, and a considerable number of sermons. He died in 1729. His Exposition of the Catcchism appeared after his death. Clarksburg, Acity, county seat of

throughout England, even crossing to France to obtain the cooperation of the National Convention. His labors went far to secure the prohibition of the slave trade in 1807 and the emancipation act of 1833. His death took place in 1846. His literary works comprise: A Por-traiture of Quakerism (1806); History of the Abolition of the Slave Trade (1808).

(1808). Clarksville (klarks'vil), a city of Tennessee, county seat of Montgomery Co., on the Cumberland River, 65 miles below Nashville. Here is the Southwestern (Presbyterian) Univer-sity. The city is largely engaged in the tobacco trade and has manufactures of farm implements, flour, lumber, iron prod-ucts, etc. Pop. (1920) 8110. Clark University, an institution for higher learn-ing at Worcester, Massachusetts, founded in 1887 by Jonas Gilman Clark. Affiliated with it, but under a separate endowment, ic Clark College. Classic (klas'ik), a term derived from

mentarics, and published his Scripture in 1887 by Jonas Gilman Clark. Affiliated Doctrine of the Trinity, which became a with it, but under a separate endowment, subject of much controversy and of com-ie Clark College. Clark College. Clark College. Clark College. Clark College. Classici, the name given to the citizens belonging to the first or L. classici, the name given to the citizens belonging to the first or L. classici, the name given to the citizens belonging to the first or L. classici, the name given to the citizens belonging to the first or Collins on the Freedom of the Catechism in 1729. His Exposition of the Catechism in 1729. His Exposition of the Catechism appeared after his death. Clarksburg, eity, county seat of gave the word klassisch (classici) a finia, on the Moongahela River. It is standard works of any nation; and 2, the center of one of the greatest gas fields ancient literature and art, in con-and gluss sand in abundance. It has glass factories (3000 operatives), spelter and A third use of the term, in contradisting carbon plants, machine shops, foundries, tool works, casket factory, etc. Here vention of some previous period, as op-cost of the Mississippi, and there is cusually implies the predominance sissippi Valley R. R. Has cottonseed-oil milks, etc. Pop. (1920) 27,860. Clarksdale, a city, county seat of form over emotion and thought, while milks, etc. Pop. (1920) 7532. Clarksdale, a city, county seat of form over emotion and thought, while milks, etc. Pop. (1920) 7532. Clarksdale, a city, county seat of the maneipsion the say on the theme, 'Anne licent invitos in servitu-tem daret' (Is it lawful to make slaves notions of them, according to the isreard marge for this dissertation roused in object is to provide that things aball be the artangement of things, or of our term daret' (Is it lawful to make slaves notions of them, according to their ea-searches for this dissertation roused in object is to provide that things aball be the artangement of things, or of our term daret' (Is i



#### Claude

no fixed method can be laid down; but it of great value will be obvious that in correct classifica-tion the definition of any group must students. hold exactly true of all the members of any other group. The best classification again will be that which shall enable the greatest possible number of general asser-tions to be made; a criterion which dis-under the Emp tinguishes between a natural and an sons. He did aprificial system of classification. Classi-tication is perhaps of most importance in natural history—for example, botany and zoology. In the former the artificial or panegyrical poen and others, we zoology. In the former the artificial or Linnæan system long prevailed, in oppo-sition to the modern or natural.

Claude (klöd), JEAN, a French prot-sition to the modern or natural. Claude (klöd), JEAN, a French prot-estant preacher and profes-sor of the college at Nimes, born in 1619. He entered into controversy with Arnauld and Bossuet, and on the revoca-tion of the Edict of Nantes took refuge in The Hague, where he died in 1687. His chief work was the Défense de la Réformation (1673). Claude (klöd), ST., a town of France, department of the Jura, at the confluence of the Bienne and Tacon. It is the see of a bishop, and has a hand-some cathedral and communal college, and a fine promenade along the Bienne. It is celebrated for turnery, hardware, musical boxes, etc. Pop. 9024. Claude Lorraine (klaud, or klöd, scape painter whose real name was Claude Geléce, but who was called Lorraine from the province where he was horn in 1600.

blautic sourcesso lor-ran'), a land-scape painter whose real name was Claude Gelée, but who was called Lorrains from the province where he was born in 1600. When twelve years old he went to live with his brother, an engraver in wood at Friburg, went from him to study under Godfrey Waats at Naples, and was after-wards employed at Rome by the painter Agostino Tassi, to grind his colors and do the household drudgery. On leaving Tassi he traveled in Italy, France and Germany, but settled in 1627 in Rome, where his works were greatly sought for and where he lived much at his ease until 1682, when he died of the gout. The principal galleries of Italy. France, Eng-land, Spain and Germany are adorned with his paintings, that on which he him-self set the greatest value being the paint-ing of a small wood belonging to the Villa Madama (Rome). He excelled in lumi-nous atmospheric effects, of which he made loving and elaborate studies. His figure work, however, was inferior. and the figures in many of his paintings were supplied by Lauri and Francesco Allegrini. He made small copies of all his pictures 1682, when he died of the gout. The later he became debauched, left the gov-principal galleries of Italy. France, Eng-land, Spain and Germany are adorned with his paintings, that on which he him-self set the greatest value being the paint-ing of a small wood belonging to the Villa Madama (Rome). He excelled in lumi-nous atmospheric effects, of which he made loving and elaborate studies. His the figures in many of his paintings were supplied by Lauri and Francesco Allegrini. He made small copies of all his pictures in six books known as *Libri di Verità* mysticism, and died at Hamburg in 1815. (Books of Truth), which form a work

ne (usually called the *Liber* and much esteemed by

students. Claudianus (kla-di-an'us), CLAUDIUS (commonly called Clau-dian), a Latin poet, native of Alexan-dria, lived the end of the fourth and be-ginning of the fifth century after Christ. under the Emperor Theodosius and his sons. He did much to recall to dying Rome the splendors of the Augustan literature, ranking considerably above any Rome the splendors of the Augustri literature, ranking considerably above any other of the liter poets. Besides several panegyrical poems on Honorius, Stilicho, and others, we possess two of his epic poems, the Rape of Proscrpine, and an unfinished War of the Giants, eclogues, epigrams, and occasional poems. Claudius (kla'di-us), often also called *Clodius*, the name of a dis-tinguished Roman family of antiquity. See Appius Claudius. Claurius or, in full. TIBEBIUS

Clau'dius, or, in full, TIBEBIUS CLAUDIUS DRUSUS NERO GERMANICUS, a Roman emperor, son of Nero, stepson of

Claudius Drusus Augustus and An-tonia, the daughter of Augustus' sis-ter; born at Lyons (10 B.C.). He lived in privacy, occupy ing himself wit with ing himself with literature, the com-position of a Roman history, and other works, until the murder of Caligula, when he was dragged from his hiding-place and proclaimed emperor (41 A.D.). The ear-ly years of his reign were marked ly y reign



**Tiberius Claudius.** 

by the restoration of the exiles, the em-bellishment of Rome, the addition of Mauritania to the Roman provinces, and successes in Germany and Britain. But later he became debauched, left the govthe restoration of the exiles, the em-lishment of Rome, the addition of gov-

#### Claudius

#### Clausenburg. See Klausenburg.

Clausthal. See Klausthal.

(klaws-trō-fō'biå), Claustrophobia Claustrophobia the fear of being shut in. Like agoraphobia it is a symp-tom of some cases of neurasthenia. Clava'ria, a genus of fungi, some species of which are edible.

Claverhouse. See Graham, John.

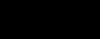
Clavichord. See Clarichord.

Clavichord. See Granam, John. Clavicle (klavi-kl), the collar-bone a bone forming one of the elements of the shoulder girdle in verte-brate animals. In man and eundry quad-rupeds there are two clavicles each joined at one end to the scapula or shoulder-bone, and at the other end of the sternum or breast-bone. In many quadrupeds the clavicles are absent or rudimentary, while in birds they are united in one piece. Clavicorn Bcetles (Clavicornes), a coleopterous insects, distinguished by the club-shaped character of the antennæ. Burying-beetles and bacon-beetles are typical examples, and there are aquatic as well as terrestrial species. Clavigero (kla·vi-hā'rõ), FRANCESCO SAVERIO, a Spanish his-torian, born at Vera Cruz, Mexico, about 1720. He was educated as an ecclesiastic, and resided thirty-six years in the prov-inces of New Spain, where he acquired the languages of the Mexicans and other indigenous nations, collected many of their traditions, and studied their his-torical paintings and other monuments of antiquity. On the suppression of the Jesuits by the Spanish government in 1767 he went to I taly, where he wrote his Mexican History, and died in 1793. Clay (kla), the name of various earths, of aluminum, with small proportions of the silicates of iron. calcium, magnesium, potassium and sodium. All the varieties are characterized by being firmly coher-ert, weighty, compact, and hard when dry, but plastic when moist, smooth to touch, not readily diffusible in water, but when mixed not readily subsiding in it. Their trancity and ductility when moist and their hardness when dry has made them from the earliest times the materials of tenacity and ductility when moist and their hardness when dry has made them from the earliest times the materials of bricks, tiles, pottery, etc. Of the chief varieties porcelain-clay, kaolin, or chinaclay, a white clay with occasional grav and yellow tones, is the purest. Potter's clay and *pipe-clay*, which are similar but less pure, are generally of a yellowish or

grayish color, from the presence of iron. Fire-clay is a very refractory variety, always found lying immediately below the coal; it is used for making fire-bricks, crucibles, etc. Loam is the same sub-stance mixed with sand, oxide of iron, and various other foreign ingredients. The boles, which are of a red or yellow color from the presence of oxide of iroa, are distinguished by their conchoidal fracture. The ochers are similar to the boles, containing more oxide of iron. Other varieties are fuller's carth, Tripoli, and boulder-clay, the last a hard clay of s dark-brown color, with rounded masses of rock of all sizes embedded in it, the re-sult of glacial action. The distinctive property of clays as ingredients of the soil is their power of absorbing ammonia and other gases and vapors generated on fertile and manured lands; indeed, no soil will long remain fertile unless it has a fair proportion of clay in its composi-tion. The best wheats are grown on calcareous clays, as also the finest fruits and flowers of the rosaceous kind. See the separate articles on the chief varie-ties. Clay. HENBY, statesman, born in ties.

and flowers of the rosaceous kind. See the separate articles on the chief varie-ties. Clay, HENBY, statesman, born in After acting as clerk in two or three state offices he commenced business in 1797 as a lawyer at Lexington, Kentucky. He soon became famous as a public speaker, and at the age of twenty-six was a member of the Kentucky legis-lature. In 1806 he was elected to the United States Senate; and in 1811 to the House of Representatives, where he was at once made speaker. In 1814 he proceeded to Europe and acted as one of the commissioners for adjusting the treaty of peace at Ghent between America and Great Britain. In 1825 he was appointed by President Adams. Secretary of State. He was an unsuccessful candidate for the presidency in 1824. 1832 and 1844. He is best known for his endeavors to shut out European influences from America, and in connection with the 'Missouri Compromise of 1820.' restricting slavery to the states south of lat. 36° 30' X.; the Compromise in 1850 regarding the admission of California, and establishment of terri-torial government in New Mexico, Utah etc. This postponed the slavery contest between the sections of the country for ten years. He died at Washington in 1852. Clay was unquestionably one of the greatest orators America has pro-duced and a splendid party chief, idolised by his followers. Claymore (klä'mör), formeriv the large two-handed, double

Claymore (klā'mör), formeriv the large two-handed, double-



#### Clay-slate

dged sword of the Scotch Highlanders. Clay-slate, in geology, a rock consist-ing of clay which has been hardened and otherwise changed, for the most part extremely fissile and often affording good roofing-slate. In color it varies from greenish or bluish gray to lead color.

lead color. Clayton, JOHN MIDDLETON, jurist, Ware, in 1796. He was educated at Yale, studied law, represented Delaware in the United States Senate 1845-49, and in 1849 was appointed Secretary of State by President Taylor. He negotiated an im-portant treaty with England (see next article). He died in 1856.

Clayton-Bulwer Treaty, a treaty

of England notes. Now, however, the va-rious banking companies and the clearing house itself have accounts at the Bank of England, and the balances are settled by transfers from one account to another. The clearing-house system was introduced by the London city private banking firms in 1775, but the joint-stock companies were in 1854 permitted to share its ad-vantages, and it has been extended to the provincial banks through their London agents. The system has also been adopted in the larger provincial towns, and in New York and other large American cities it is in full operation.—The Reilway Clearing House is an association insti-tuted to allow the various companies to carry on their traffic over different lines. Thus a passenger can purchase one single ticket which will carry him over lines belonging to several companies, and parcels are conveyed through without additional booking, fresh entries, and con-sequent delay, the claims of the different companies being adjusted in the clearing house, which is maintained at the com-mon expense. Clearing-nut (Strychnos potsto-rum). a small tree of

porticite). He died in 1856.
Clayton-Bulwer Treaty, a treaty Britain and the United States concluded in 1850, and having reference to the construction of a ship canal across Nice, ragua. Soth parties agreed not to erect fortifications here, nor to acquire any part of the Central American territory.
Cleanthes (klé-an'thes, a Greek Stoic about 300 n.c. He was a disciple of Zeno for nineteen years, and succeeded him in his school. He did of voluntary tarration at the age of eighty. Only come fargments of his works are extant.
Clear, Carr, a promontory 400 feet of the fartance of Vessels (the same sid, to the clarifying effect of the albu-mon or spense.
Clearance of Vessels (the same inwards or outwards according as the inwards or outwards according as the inwards of outwards according as the same products of bree, sever-pipe, clar, companies and railways. In the former, companies the and railways. In the former staring House (klering), an in-spenductor of bree, sever-pipe, clar, coal, machiner, etc. Poon (1920) S20.
Clearing House (klering), an in-spenductor of bree, sever-pipe, clar, coal, machiner, etc. Poon (1920) S20.
Clearing House (klering), an in-spenductor of bree, sever-pipe, clar, coal, machiner, etc. Poon (1920) S20.
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Clearing House (klering), an in-spenductor of bree, sever-pipe, clar, coal machiner, etc. Poon (1920) S20.
Clearing House (klerin

Cleavage

#### Clement

#### Cleburne



which may be placed on the first, second. third, or fourth lines; and the bass or F

slef, 🛃 seated on the fourth line. The

mean clef is seldom used in vocal music except in part songs.

except in part songs. Cleg, a name applied to various in-horses, cattle, and even to man from their blood-sucking propensities. Such are the great horse-fly, gadfly, or brecze (Tabanus bovinus, the Chrysops, cacu-tiens, and the Hamatopöta plavidiis). Clematis (klem'a-tis), a genus of the order Ranuculaces. The most com-mon species, C. Vitalba, virgin's bower or traveler's joy, is conspicuous in British hedges, first by its conjous clusters of white blossoms, and afterwards by its feather-tailed silky tufts attached to the fruits. Among the cxotic species in greatest favor with horticulturists are 0. fammula, which produces abundant

readjustment by pressure and heat of the components of rocks, which is one of the phases of metamorphism. Cleburne (kl8'burn), a city, county his daily, L'Awrorc, he defended Dreyfus sent of Johnson Co., Texas, (q. v.), and it was in this paper that 53 miles s. w. of Dullas. It has cotton fins and compress, oil mill, peanut plant. broom factory, car shops, etc. Pop. (1910) 10.364; (1920) 12.820. Cleckheaton (klek'e-ton), a town of worsted industries, engineering works, etc. Pop. 12.867. Clef (klef; French for kcy), in music, and which determines the pitch of the staff and the name of the note on its lines. There are three clefs now in use: the sreble or G clef, for the staff. There are three clefs now in use: the sreble or G clef, for the staff. Staff and the name of the note on the staff and the name of the note on the staff and the name of the note on the staff and the name of the note on the staff and the name of the note on the staff and the name of the note on the staff and the name of the note on the staff and the name of the note on the staff and the name of the note on the staff and the name of the note on the staff and the name of the note on the staff and the name of the note on the staff and the name of the note on the staff and the name of the note on the signed in 1920. Staff and the name of the note on the staff and the name of the note on the signed in 1920. Clemens (klem'ens), Samuer Lang-Hores, humorist, more grea-tories, humorist, more greated in 1920.

Versailles was being prepared. He re-signed in 1920. Clemens (klem'ens), SAMUEL LANG-HORNE, humorist, more gen-crally known by his pseudonym 'Mark Twain,' born in Missouri in 1835. He worked for some time as a compositor in Philadelphia and New York, and then in 1851 learned the business of piloting on the Mississippi. He afterwards went to Nevada and California, working in the mines and editing a newspaper in Vir-ginia City. He subsequently engaged in lecturing, edited for a time a paper in Buffalo, and finally married and settled in Hartford, Connecticut, making this his home for the remainder of his life. Los-ing his fortune by the failure of a pub-lishing firm into which he had entered, he made a tour of the world in 1980-97, giving lectures and readings, and paying the debts of the firm with the proceeds. He early made his mark as a humorist, and is undoubtedly regarded as the great-est humorist of the period. He died in 1910. His best known works of humor are The Jumping Frog, etc. (1987); Roughing It (1873); The Innocents Abroad (1880); Tom Savyer (1876): A Tramp Abroad (1880); The Prince and the Pauper (1882); Life on the Mis-sixsippi (1883); and Huckleberry Fins (1885). Clement (kle'ment), properly Trrus

feather-tailed sinky turns attached to the Abrond (18(3)): Tom Satoyer (18(3)): fruits. Among the exotic species in A Tramp Abroad (1880): The Prince greatest favor with horticulturists are 0. and the Pauper (1882): Life on the Mis-fammila, which produces abundant panicles of small, white flowers, and has a fine perfume; C. cirrhõsa, remarkable for its large, greenish-white flowers; and C. viticella, with its festooning branches adorned with pink or purple bells. C. Virginiāna is an American species known by the same name as the English; C. Jackmanni, is a well-known garden hybrid. The fruit and leaves of the com-mon clematis are acrid and vesicant. Clemenceau (cle-män-sö'), Gzobaus B. E., a French states-man, born in La Vendee in 1841. He was educated as a physician and resided in the United States from 1865 to 1869. chief remaining works are the Protrep-



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#### Clement

tileos, Paidagógos, and Strömatcis or Strö-mata (l'atch-work); the first an exhorta-tion to the Greeks to turn to the one true God, the second a work on Christ, the last a collection of brief discussions in chronology, philosophy, poetry, etc. Few of the early Christians had so wide a knewledge of Greek philosophy and liter-ature and it is as a higher philosophic scheme that he mainly discusses Chris-tianity. He was regarded as a saint until Benedict XIV struck him off the calendar. Clement, CLEMENS ROMANUS, or Cle-'Apostolic Fathers.' is said to have been the second or the third successor of Peter as bishop of Rome, and the first of the numerous popes named Clement. He is perhaps identical with Consul Flavius Clemens, put to death under Domitian A.D. 45. Various writings are attributed to him, but the only one that can be re-garded as genuine is an Epistle to the 'orinthians, first optained in a complete form in 1875. It is of importance as ex-hibiting the first attempt of the Church of Rome to exercise ecclesiastical authority over other churches.

hibiting the first attempt of the Church of Rome to exercise ecclesiastical authority over other churches. Clement (klå-män), JACQUES, the assassin of Henry III of France, born in 1567, became a Domin-ican, and the fanatical tool of the Dukes of Mayenne and Aumale, and the Duchess Montpensier. Having fatally stabbed the king, he was at once killed by the courtiers; but the populace, instigated by the priests, regarded him as a martyr; and Pope Sixtus V even pronounced his panegyric. Clementi (klå-men'tě). Murzo picelet

and Pope Sixtus V even pronounced his panegyric. Clementi (klå-men'të), Muzio, pianist Rome in 1752. As early as his twelfth year he wrote a successful mass for four voices, and had made such progress in the pianoforte that an Engliahman, Mr. Beckford, took him to England to complete his studies. He was then en-gaged as director of the orchestra of the opera in London, and his fame having rapidly increased he went in 1780 to l'aris, and in 1781 to Vienna, where he played with Mozart before the emperor. In 1784 he repeated his visit to Paris, but after that remained in England till 1802, when he went back to the con-tinent. He returned in 1810 to Eng-land, where he settled down as superin-tendent of one of the principal musical establishments in London. II e died in and, where he settled down as superin-tendent of one of the principal musical establishments in London. II e died in and Creasar proclaimed Cleopatra (Bec. 40), she won (Parsar to her cause, and was interred in Westminster Abbey. His most important compositions were his sixty sonatas for the pianoforte state diaguate ad Parnassum, a work S-3 8--3

of high educative value. He represented of his day, and his influence upon modern execution has led to his being char-acterized as 'the father of pianoforte playing.'

**Cleobulus** (kle-o-bū'lus), one of the seven wise men of ancient Greece, a native of Lindus, who traveled to Egypt to learn wisdom, and became King of lthodes. He flourished B.C. 560.

characteristic for the solution of the solution of the second sec

rating, committed suicide. **Cleon** (klé'on), an Athenian dema-gogue, originally a tanner by trade. He was well known in public be-fore the death of Pericles, and in 427 B.C. distinguished himself by the proposal to put to death the adult males of the revolted Mytileneans and sell the women and children as slavas. In 405 he tank revolted Mytheneans and sell the women and children as slaves. In 425 he took Sphacteria from the Spartans; but in 423 and 422 he was violently attacked by Aristophanes in the Knights and in the Wasps. He was sent, however, in 422 against Brasidas, but allowed him-

Cleopatra

#### **Cleopatra's Needles**

(afterwards put to death by Augustus), and gave her a magnificent reception when she subsequently visited him at Rome. By poisoning her brother she re-mained sole possessor of the regal power, took the part of the triumvirs in the civil war at Rome, and after the battle of Philippi sailed to join Antony at Tarsus. Their meeting was celebrated by splendid festivals; she accompanied him to Tyre, and was followed by him on her return to Egypt. After his conquest of Armenia he again returned to her and made his and was followed by him on her return to Egypt. After his conquest of Armenia he again returned to her and made his three sons by her, and also Cæsarion, kings. On the commencement of the war between Augustus and Antony the latter lost a whole year in festivals and amuse-ments with Cleopatra at Ephesus, Samos, and Athens, and when at last the fleets met at Actium, Cleopatra suddenly took to flight, with all her ships, and Antony. as if under the influence of frenzy, im-mediately followed her. They fled to Egypt, and declared to Augustus that if Egypt were left to Cleopatra's children they would thenceforth live in retirement. Augustus, however, demanded Antony's death and advanced on Alexandria. Be-lieving Cleopatra who had taken refuge in her mausoleum, to be treacherous and dead, Antony threw himself on his sword, and shortly afterwards Cleopatra killed herself by applying an asp to her arm to escape the ignominy of being led in a Roman triumph (B.C. 30). With her the dynasty of the Ptolemies ended. **Cleopatra's Needles**, given to two

Cleopatra's Needles, the name given to two Egyptian obelisks, formerly at Alexandria, but one of which is now in London, the other in New York. They are made of the rose-red granite of Syene, and were originally erected by the Egyptian king Thothmes III in front of the great temple of Heliopolis, the On of the Scriptures, where Moses was born and brought up. They were taken to Alexandria shortly before the commencement of the Christian era, and after the death of Cleopatra, but possibly in pursuance of a design originated by her. The London obelisk, which stands on the Thames embankment, was presented to the British government in 1820, but was long left uncared for. In 1877-78, however, it was brought to London by the private munificence of Siterasmus Wilson, and erected in its place at a cost of some \$50,000. The New York obelisk was presented to the United States by the Khedive of Egypt, and was set up in Central Park in 1881. Each is about 70 feet high and inscribed with numerous hieroglyphics. Clock, an ancient instru-Cleopatra's Needles, the name given to two

ment for the measurement of time by the escape of water from a vessel through an orifice. In the older ones the hours were estimated simply by the sinking of the sur-face of the water, in others the water, is urface is connected with a dial-plate and hand by a system of weights and floats. In the accompanying, figure weights and floats. In the accompanyin, figure the float A is attached to the end of a chain which is wound round the spindle B, and has at its other extremity the counterweight C. On water being ad-mitted from the cis-tern D the float rises, the counter-weight descends and turns the spindle, which again turns the hand that marks the hours.



hours.

Clerestory (klër'stö-ri), or CLEAP STORY, the upper part of the nave in Gothic churches, above the triforium where a triforium is present,



Clergy (kler Greek klėros, Latin. ŧl la. the and loricia), the ious remain, as invested with no inherent claim to regard. A clergyman cannot, how-ever, be compelled to serve as juryman, he is exempted from arrest while cele-brating divine worship, from acting as bailiff, constable, or like office, from at-tendance at a court leet; but on the other hand he cannot accept a seat in the House of Commons, engage in trade or farm lands of more than eighty acres without his tishop's consent. The Episcopalians recognize three classes of clergy—bishops, priests and deacons; and generally hold the doctrine of the apostolic succession. Large numbers of Protes-tants, however, reject this dogma, and be-lieve in the ministry of only one order. The Catholic clergyman, according to the doctrine of the Roman Catholic Church, is endowed in his spiritual character with asupernatural power, which distinguishes him essentially from the layman. Requ-lar clergy are those who live according to monastic rule, secular clergy those who

ers. It is his duty to lead the responses and assist in public worship, at funerals, etc.

etc. Clermont-de-Lodève (klār-mõn-d-lo-dāv), or Clormont de l'Hérsult (-d-lā-rō), a town of France, dep. of Hérault, 23 miles west by north of Montpellier. Pop. 5187. Clermont - en - Beauvaisis (klār-mön-tān-bö-vā-sē), or Clormont de l'Oise (d-lwās), a town of France, dep. Oise, 17 miles east by south of Beauvais. Pop. (1906) 4014. Clarmont-Ferrand (klā pmön-fā-

(1906) 4014. **Clermont-Ferrand** (k lā r-môŋ-fā-rāŋ), a town of France, capital of department Puy-de-Dôme, on a hill at the foot of the volcanic range in which the summit of the Puy is conspicuous. It possessed con-siderable importance under the Romans, aud became a bishop's see at a very early period. It is an antique and gloomy town built of dark, volcanic stone. The most remarkable edifices are the cathedral, a huge, irregular, gloomy pile, and the Church of Nôtre Dame, founded in 580. It is visited for its mineral waters and has various manufactures, including chemicals, ropes, hats, etc. Pop. 44,113, **Clermont-Tonnerre** (klār-môŋ-tonchemicals, ropes, hats, etc. Pop. 44,113, Clermont-Tonnerre (klär-mög-ton-när), the name of a noble French family of whom name of a noble French family of whom one of the most celebrated was Count Stanislas, born in 1747. At the breaking out of the revolution of 1780 he endeav-ored to promote the establishment of a constitutional monarchy, founding with Malouet the Monarchical Club, and with Fontanes the Journal des Impartiaus. In 1791 he was charged with assisting the king in his attempt to escape, but was set free on swearing fidelity to the as-sembly. In 1792, however, he was mur-dered by the mob at the house of the Counters de Brissac.

him essentially from the layman. Recu-lar clergy are those who live according to monastic rule, secular clergy those who do not. Clergy, BENEFIT OF. See Benefit of Clergy Pensions have been adopted of the large denominations in the United States. The plans for establishing funds vary, but in general they depend on con-tributions from the clergy, supplemented by endowments and gifts from local of theres gives it the name of 'The Forest Clerk, JOHN, of Eldin, near Edin-eral bridges, notably the double-decked invention of the maneuver of breaking the enemy's line. Clerk, PARHA, any officer of the miles of lake frontage, protected by break-Clerk, Church of England, appointed waters. The harbor has a spacious en-

#### Cleveland

trance; on the east side are the docks for passenger service from other lake ports; westward are the great ore docks, with unexcelled facilities for handling ore. The Cuyahoga River is also lined with docks. The Public Square contains a sol-diers' monument, a statue of Moses Cleave-land, after whom the city is named; and a monument to the late Mayor Tom L. Johnson. Under the 'Group Plan ' the public buildings are being arranged in a quadrangle enclosing the Mall. These buildings will include the City Hall, Fed-eral Building, Auditorium, Public Library, etc. The plan of the Group Plan advisors included the placing of a Union Station on the north side of the Mall between the rity and county buildings, but it was later decided to erect the Union terminal on the Public Square. From the square extends Euclid Avenue, once regarded as the most beautiful street in the country. There are 2179 acres of public parks. The interest-ing ellifees of the city include the Western Reserve University, the Case School of Applied Science, the Art School, Museum of Art, Music Hall, etc. The city is noted for its great diversity of industries, among which are its various manufactures of iron, the refining of petrance: on the east side are the docks for

of Art, Music Han, etc. The city is noted for its great diversity of industries, among which are its various manufactures of iron, the refining of pe-troleum, wood-working factories, the man-ufacture of automobiles and parts, paints and varnishes, and machinery of all kinds. It is an important railroad center, all the trunk lines between New York and Chicago running through or near it, and other lines terminating here. Its lake commerce is very large, consisting chiefly of iron ore, coal and lumber, amounting to nearly \$1,000,000,000 yearly. It is one of the chief shipbuilding centers of the coun-try. Settled in 1706 it became a city in 1836. Pop. (1900) 381,768: (1910) 560,6633: (1920) 796,836, being now the fifth city in population in the U. S. **Cleveland Heights**, a village of

fifth city in population in the village or Cleveland Heights, a village or Cleveland, Pop.

Ohio, 9 miles E. of Cleveland, Pop. (1910) 2955; (1920) 15,236. Cleveland, a city, county seat of Bradley Co., Tennessee, 29 miles E. N. E. of Chattanooga. It has iron

tion; and in 1884 he was nominated for the presidency by the Democratic national convention at Chicago, and was elected on November 4. Civil service reform and tariff reform were advocated by him dur-ing his tenure of office, which came to an end in 1889. In 1892 he was again placed in nomination for the presidency by the Democratic party and was a sec-ond time elected, his being the first in-stance of a return to the presidency after an interval of private life. Presi-dent Cleveland's unflinching honesty and his diligent effort to promote the best interests of the country gave him a high place in public estimation. Cleves (klevz: in German Kleve). formerly the capital of the dukedom of Cleves, a town in Rhenish l'russia, 70 miles N. w. of Cologne, about a league from the Rhine, with which it is connected by a canal. It has manufactures of tobacco, leather and cottons, and a mineral spring with baths. etc. Pop. 14,684. Clew Bay, of Ireland, County Mayo. of them fertile and cultivated. Cliché (kle'shā), an electrotype or a stereotype cast from an en-graving, especially from a woodcut. Clichy (cle-shė), a town about 4 miles N. w. of Paris, of which it now forms a suburb. Pop. 41,516. Click-bettle. See Elater. Cliche (kll'entz). in ancient Rome.

Click-bettle. See Elater.

Click-Dettle. See Elater. Clients (kli'entz), in ancient Bome, were citizens of the lower ranks who chose a patron from the higher classes, whose duty it was to ad-vise and assist them, particularly in legal cases, and in general to protect them. The clients, on the other hand, were obliged to portion the daughters of the patron if he had not sufficient for-tune; to follow him to the wars; to vote for him if he was candidate for an office, etc. This relation continued till the time of the emperors. The term is now applied to one who engages the services of a lawyer. Cliff-dwellers, a race or family of

miles E. N. E. of Chattanooga. It has iron services of a lawyer. foundries, woolen, hosiery, ensket, furni-ture and flour mills. Pop. (1920) 6522. Cleveland, STEPHEN GROVER, 22d dwelt in recesses of cliffs in the valleys and 24th president of the of the Rio Grande and Rio Colorado United States, born at Caldwell. Now and its tributaries. Their dwelling Jersey, in 1837; died in 1908. He settled places were so far up the sides of steep in Bufalo, and having acquired an excel-ciffs as to be almost inaccessible, many lent position as a lawyer was elected mayor in 1881. His record for honesty in the rock openings. The stones are and efficiency as mayor brought him in 1882 the Democratic nomination for gov-server of New York, followed by his elec-



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## Clifford

inside. Many of the houses are small, but where large recesses existed com-munal dwellings of many rooms were built, not infrequently two, and at times built, not infrequently two, and at times three, stories in height. Many relics of the inhabitants have been found in these the inhabitants have been found in these edifices, which are supposed to have been built as places of refuge from enemies. How these people lived we cannot tell, as the region is now rainless and neces-sarily destitute of food plants. It must have been less barren in former times times

must have been less barren in former timer Clifford (clif'ford), the name of a Clifford very old English family, several members of which have played an important part in history. The founder of the family, WALTER, son of Richard Fitz-Ponce, a Norman baron, acquired the castle of Clifford, in Here-fordshire, under Henry II, and hence took the name of Clifford. In 1523 the Clifford, became Earls of Cumberland, but in 1643 this title became extinct. Clifford, English mathematician, born in 1845; educated at King's Col-lege, London, and at Trinity College, Cambridge, where he was graduated as second wrangler. In 1871 he was ap-pointed professor of applied mathematics at University College, London. In 1876 his health gave way, but was restored by a summer spent in Spain and Algiers, though not permanently, for two years

by a summer spent in Spain and Algiers, though not permanently, for two years later he again broke down, and died soon afterwards at Madeira, March 3, 1879. In mathematics his teaching and writ-ings are regarded as marking an epoch in the history of the science in England. Cliffside **Park**, a residential borough opposite New York. Pop. 5709. Cliffside, (kliftun), a watering place

**Clifton** (kliftun), a watering place in Gloucestershire, England, within the limits of Bristol. A suspension bridge here crosses the Avon, 245 feet

Above its bed. Clifton, a residential borough of Pas-saic Co., New Jersey, 3 miles from Paterson, with silk, steel, woolen mills, etc. Pop. (1920) 28,470. Clifton Forge, a city of Virginia. 45 miles s. w. of Staun-ton. It has blast furnaces, iron mining.

ton. It has blast furnaces, iron mining, etc. Here are the car shops of the Chesa-peake & Ohio R. R. Pop. 6150. Climacteric (kh-mak'ter-ik; annus climactericus), accord-ing to an old theory, a critical period in human life in which some great altera-tics is munosoft to take place in the con-

21, etc.; 63 is called the grand climac-

21, etc.; to is called teric. Climate (cli'mat), the character of phenomena peculiar to every country as respects heat and cold, humidity and dryness, the direction and force of the prevailing winds, the alteration of the seasons, etc., especially as such condi-tions affect animal and vegetable life. In general, geographical latitude is the principal circumstance to be taken into view in considering the climate of a tions affect animal and vegetable life. In general, geographical latitude is the principal circumstance to be taken into view in considering the climate of a country, and thus the torrid, temper-ate, and frigid zones may each be said roughly to have a climate of its own. The highest degree of heat is found in the equatorial regions, and the lowest, or the greatest degree of cold, at the poles. In the former the temperature continues practically the same all the year round, though there may be alter-nating rainy seasons and dry seasons. The variations in temperature are very considerable in the temperate zones, and increase as we approach the polar circles. The heat of the higher latitudes, especially about 59° or 60°, is, in July, greater than that of countries 10° mearer the equator, and at Tornea, in Lapland, where the sun's rays are very oblique even in summer, the heat is sometimes equal to that of the torrid zone, because the sun is almost always above the horizon. But even in the equatorial regions, and still more in in-termediate regions, the temperature is affected by local configuration and cir-cumstances. In the deserts of Africa, for instance, owing to the exceptional radi-ating power of sandy plains and the ab-sence of aqueous vapor in the atmos-phere, the heat is excessive, while in the corresponding latitudes of South Amer-ica the mountainous character of th. country makes the climate more moder-ate. Altitude above the sea indeed has everywhere the same effect as removal to a greater distance from the equator, and thus in the Andes we may have a tropical climate at the son-level and an Arctic one on the mountain summits The winds to which a country is most exposed by its situation have also a great influence on the climate. In the northern hemisphere if north and east winds blow frequently in any region it will be colder, the latitude being the same, than another which is often swept ton. It has blast furnaces, iron mining, great influence on the climate. In the etc. Here are the car shops of the Chesa-peake & Ohio R. R. Pop. 6150. winds blow frequently in any region it **Climacteric** (kli-mak(ter-ik); annus will be colder, the latitude being the climactericus), a cord-same, than another which is often swept ing to an old theory, a critical period in by milder breezes from the south and human life in which some great altera-tion is supposed to take place in the con-stitution. The first climateric is, ac-warm south winds which blow from the cording to some, the seventh year; the hot deserts of Africa. The greater or others are multiples of the first, s~ 14, lesser extent of coast-line a country



#### Climax

Climax posesses in proportion to its area has a decided influence on the climate. The almost unvarying temperature of the ocean equalizes in some degree the peri-odic distribution of heat among the different seasons of the year, and the proximity of a great mass of water moderates, by its action on the atmos-phere, the heat of summer and the cold of winter. Hence the more equable temperature of islands and coasts as compared with that of places far inland, and hence the terms *insular climate* and *continental climate*. The British Isles, Tasmania, and New Zealand enjoy a mild or insular climate as compared with, say, Central Russia or Central Asia. Thus it happens that London has a milder winter and a cooler sum-mer than Paris, though the latter is nearly 3° farther south. Similarly, though Warsaw and Amsterdam are almost in the same latitude, the mean annual temperature of the former is 40.48°, while it reaches at the latter 54.4° Fahr. The proximity of large masses of water involves also the pres-ence of much aqueous vapor in the at-mosphere, which may be condensed in abundant rains so as to greatly influence the plant-life of a country. Direction of mountain chains, set of ocean cur-rents, and nature of soil are other mod-ifying elements. In exhibiting graphi-cally the chief climate facts of a region various methods may be adopted, but in all the use of *isothermal lincs* is one of the most instructive features. These are lines drawn on a map or chart connect-ing those places which have the same mean annual temperature or same mean summer and mean winter temperature. In this way we may divide the earth into sones of temperature which by no means coincide with the limits of the zones into which the earth is astronomically di-vided, and when compared with these on a map show interesting and instructive divergences. Goology teaches that vast changes have taken place in the climate cally the chief climate facts of a region various methods may be adopted, but in all the use of *isothermal lincs* is one of the most instructive features. These are lines drawn on a map or chart connect-ing those places which have the same mean annual temperature or same mean summer and mean winter temperature. In this way we may divide the earth into sones of temperature which by no means coincide with the limits of the zones into which the earth is astronomically di-vided, and when compared with these on a map show interesting and instructive divergences. Geology teaches that vast changes have taken place in the climate of most if not of all countries, the causes of which are not fully under-stood. Climax (kli'maks; Greek, klimax, a ladder or stairs), a rhetorican fyure in which a series of propositions or objects are presented in such a way that the least impressive comes first, and there is a regular gradation from this to the most impressive or final. Climbing Perch (kllm'ing; Anabaside, rezerstable for having the pharyngeal bones enlarged and modified into a series

of cells and duplications so that they can retain sufficient water to keep the gills moist and enable the fish to live out of water six days. The climbing perch of India proceeds long distances overland in search of water when the pools in which it has been living have dried up. It is also credited with a power of climbing the rough stems of palm-trees, but as to this latter point authorities disagree. It is known of the climbing perch that the fish-ermen of the Ganges, who subsist largely on these fishes, are accustomed to put them into an earthen pan when caught; the fishes live for days without water. Climbing Plants are plants of

the fishes live for days without water. Climbing Plants, are plants of naturally seek support from their sur-roundings to rise from the ground. Some are twining plants, rising by winding themselves or their tendrils (cirri) round the trunks of trees, etc. Such are the honeysuckle and scarlet runner. Others, like the ivy, attach themselves by small roots developed from the stem as they ascend. Some in climbing always twine spirally from right to left, others again always take direction.

Clincher-built, CLINKE B-BUILT (klin'sher, klin'ker), a term in shipbuilding applied to that method whereby the planks are so ar-ranged that the lower edge of the plank above overlies the upper edge of that below it.

#### Clinton

the river here, each a mile long. It has part of the food of the whale, and hences many educational institutions. Pop. (1920) 24,151. Clinton, a town of Worcester Co., Rimated on the Nashua River, 40 miles center, and a great rate of speed. It was inghams, carpets, wire cloth, woolens, etc. Pop. (1920) 12,979. Clinton, a city, county seat of Henry Lancaster, 28 miles N. N. W. of Man-chester. Pop. (1120) 12,979. Clinton, a city, county seat of Henry Lancaster, 28 miles N. N. W. of Man-chester. Pop. (1120) 12,979. Clinton, a city, county seat of Henry Lancaster, 28 miles N. N. W. of Man-chester. Pop. (1120) 12,979. Clinton, born in Orange Co., New York, in 160; died in 1828. Win-ing emincuce in Democratic politics, he was elected United States Senator in 1801. Mayor of New York in 1803, lieu-tenant-governor of that state in 1811 and governor in 1817. It was due to his in-fuence that the Erie canal was begun and he lived to see it completed and the prosperity which it produced Clinton, GEOBOM (1739-1812), an governor of New York in 1803, lieu-tittel Britain, N. Y., the son of Charles Little Britain, N. Y., the son of Charles Little Britain, N. Y., the son of Charles clinton in 1720. George Clinton from Ireland in 1720. George Clinton for New With is father and brother, James Little Britain, N. Y., the son of Charles clinton in 1874. George Clinton from Ireland in 1720. George Clinton from Ireland in against Fronte. James New York, in 1769; died in 1823. With ning eminence in Democratic politics, he was elected United States Senator in 1801. Mayor of New York in 1803, lieu content of New York in 1803, lieu novernor in 1817. It was due to his in prosperity which it produced Clinton, Gronze (1739-1812), an for the United States. He was born at little Britain, N. Y., the son of Charles of the United States. He was born at little Britain, N. Y., the son of Charles of the United States. He was born at little Britain, N. Y., the son of Charles of the United States. He was born at little Britain, N. Y., the son of Charles of the United States. He was born at little Britain, N. Y., the son of Charles of the United States. He was born at little Britain, N. Y., the son of Charles of the United States. He was born at little Britain, N. Y., the son of Charles of the United States. He was born at little Britain, N. Y., the son of Charles of the United States. He was born at little Britain, N. Y., the son of Charles of the British establishments. In frage and afterward studied law. In 1775 was chosen governor of New York, and held offee for 21 years in all. In 1904 held offee for 21 years in all. In 1904 held offee for 21 years in all. In 1904 held offee for 21 years in all. In 1904 held offee for 21 years in all an experiment troops and 200 Sproys, and took it athough strongly grapheses on of im-portant posts, and returned to Madras in 1758 he saile accurated without a bib for nearly two months, and at has routed the enemy, took possession of im-portant posts, and returned to Madras in 1758 he saile accurate was back in India. In his portant posts, and returned to Madras in 1758, commanded the forces raised in successful on troops and United Stateked the Britain, N. Y. He served at Frontens in 1758, commanded the forces raised to the Britaik, Hole. Clive son superior force under Sit Henry Chinton an serverely woundel. He was one of the protocher under Sit Henry Chinton an serverely woundel. He was one of the protocher under Sit Henry Chint

Clive

#### Clivers

land. Clive now visited England again, where his success was highly applauded without much inquiry as to the means; and in 1761 he was raised to the Irish peerage with the title of Lord Clive, Baron of Plassey. In 1764 fresh troubles in India brought him back, but now as President of Bengal, with com-mand of the troops there. Before his arrival, however, Major Adams had already defeated the Nabob of Oude, and Lord Clive had only the arranging of the treaty by which the company ob-tained the disposal of all the revenues of Bengal, Bahar, and Orissa. In 1767 he finally returned to England. In 1773 a motion supported by the minister was made in the House of Commons that 'Lord Clive had abused the powers with which he was entrusted,' but it was rejected for a resolution that 'Lord Clive had rendered great and meritorirejected for a resolution that 'Lord Clive had rendered great and meritori-ous services to his country.' Ilis health was by this time broken, and in one of his habitual fits of melancholy he put an end to his life, November 22, 1774. Clive was of a reserved temper, although among his intimate friends he could be lively and pleasant. He was always self-directed and secret in his decisions, but inspired those under his command with the utmost confidence, owing to his bravery and presence of mind. In pri-vate life he was kind and exceedingly liberal. He married the sister of the astronomer-royal Dr. Maskelyne, by whom he had two sons and three daugh-ters. rejected Clive ha

Clivers. See Cleavers.

Clock also have a spring setting their works or hour-teller, was common even among the ancients, but their timepieces were nothing else than sun-dials, hour-glasses, and clepsydre. In the earlier half of our era we have accounts of several at-tempts at clock construction: that of Boethius in the 6th century, the clock sent by Harun al Rashid to Charle-magne in S09, that made by Pacificus. Archdeacon of Verona, in the 9th cen-tury, and that of Pope Sylvester II in the 10th century. It is doubtful, how-ever, if any of these was a wheel-and-weight clock, and it is probably to the monks that we owe the invention of clocks set in motion by wheels and weights. In the 12th century clocks were made use of in the monasteries, which announced the end of every hour by the sound of a bell put in motion by means of wheels. From this time for-astruck,' is often met with. The hand for marking the time is also made men-tions clocks. Richard, Abbot of St Albans in England, made a clock in 1326 such as had never been heard of till then. It not only indicated the course of the sun and mon, but also the ebb and flood tide. Large clocks on steeples likewise were first made use of in the 14th century. A cele-brated clock, the construction of which is well known, was set up in Paris for (harles V in 1379, the maker being Henry de Vick, a German. It probably formed a model on which clocks were constructed for nearly 300 yeers, and until Huyghens applied the pendulum to clockwork as the regulating power, about 1657. The great advantage of the pendulum is that the beats or oscilla-tions of a pendulum all occupy substan-tially the same time (the time depend-ug on its length), hence its utility in marting regularity to a time-measurer. "h mechanism by which comparative regularity was previously attained, which the pendulum was connected with the clock-work, was also less perfect than others subsequently introduced, especially Graham's decal-heat eccap-ment, invented in 1700. (See Excap-Clivers. See Cleavers. Cloaca (klō-a'ka), an underground the oldest known example is the Cloaca Maxima, or great sewer at Rome, built some 2500 years ago. A portion of it is still standing. It is about 13 feet bigh and as many wide.—The term is also applied to the excrementory cavity in birds, reptiles, many fishes and lower mammalia (Monotremata), formed by the extremity of the intestinal canal, and conveying outwards the faces, urine, etc. Clock, an instrument for measuring minutes, and usually seconds, by meat-of hands moving on a dial-plate, end the movement of its machinery regu-lated by a pendulum, and in not being portable. The largest and most typical clocks also differ in having their ma-chinery set in motion by means of a fulling weight or weights, the watch wheelwork being moved by the force of an uncoiling spring; but many clocks many clocks an uncoiling spring; but many clocks

#### Clock

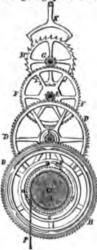
and spring serve the same purpose as the pendulum, and the honor of being the inventor of the balance-spring was contested between Huyghens and the English philosopher Dr. Hooke. Vari-ous improvements followed, such as the chronometer escapement, and the addi-tion of a compensation adjustment, by which two metals having unequal rates of expansion and contraction under vari-ations of temperature are combined in of expansion and contraction under vari-ations of temperature are combined in the pendulum or the balance-wheel, so that, each metal counteracting the other, the vibrations are isochronous under any change of temperature. This ar-rangement was perfected by Harrison in 1726, and is especially useful in navi-gation. The accompanying cut shows the going part of a clock in its simplest form. A is a drum on which is wound the cord P, to which the weight is at-tached, the drum hav-

tached, the drum hav-

ing a projecting axis with a square end to receive the key in winding up the clock. The drum is con-

The drum is con-nected with B, the first wheel of the train, by means of

train, by means of the ratchet-wheel F, and catch R, which allow the clock to be



The function K which allow the clock to be wound up without ur ing B. The wheel B drives the pinion C and the wheel B drives the bin drives the pinion C and the wheel B drives the bin drives between 0. E. F. G. and H. The last is named the escape ment wheel, and forward with the pendulum. The wheel D turns once in an hour, the wheel I to turns once in the week is and one axis working inside another, the clock hands and dial show hours, quarters, etc., are sounded is no necessary part of a clock, or that by which hours, quarters, etc., are sounded is no necessary part of a separate falli

**Clodius** (klö'di-us), PUBLIUS, a no-torious public character of ancient Rome, son of Appius Claudius Pulcher, who was consul about 79 B.C. He served in the third Mithridatic war under Sucullus, and filled different high posts in the provinces of the East, where his turbulence was the cause of serious disturbances. Returning to Rome, he became a popular demagogue, was elected tribune in 50 B.C., was the means of procuring Ciccro's banishment. and continued to be a ringleader in all the seditions of the time till killed in an encounter between his followers and those of Titus Annius Milo. One of Cicero's orations was written in defense of Milo. of Milo.

of Milo. Clog-almanac, an almanac or calen-ting notches or characters on a clog or block, generally of wood. The block had generally four sides, three months for each edge. The number of days is marked by notches, while various sym-bols are used to denote saints' days, the golden number, etc. Clogher (klö'ger), a village and old episcopal see of Ireland in County Tyrone, with cathedral and bishop's palace. The see, of which St. Patrick is said to have been the first bishop, is united with that of Armagh. I'op. about 250. Cloisonné (klwå-son-ñ). See Engmed

Cloisonné (klwå-son-ū). See Enamel. Cloister (kluis'ter), an arched way or gallery, often forming part of certain portions of monastic and col-legiate buildings, usually having a wall of the building on one side, and an open colonnade, or a series of windows with piers and columns adjoining an interior yard or court on the other side. Such galleries were originally intended as places of exercise and recreation, the persons using them being under cover. The term is also used as equivalent to convent or monastery. Clonakilty (klo-nn-kil'ti)

Clonakilty (klorna-kil'ti), a sea-port of Ireland, County Cork, with a considerable trade in grain. Pop. 3076.

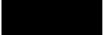
Pop. 3676. Clonmel (klon-mel'), a municipal and until 1885, parliamen-tary borough of Ireland, partly in County Waterford and partly in County Tip-erary. It lies in a beautiful valley on both sides of, and on two islands in, the river Suir, and has a jail, barracks, courthouse, etc.; carries on tanning, brewing, and flour-milling, and has a trade in agricultural produce. It was the birthplace of Sterny. Pop. about 10,200.

#### Clonmel

**Clontarf** (klon'turf), a town of Ire-land, County Dublin, on the northern shore of Dublin Bay. It is a much-frequented watering-place and is historically interesting as the scene of Brian Boroimhe's victory over the Danes in 1014. Pop. 5105.

much-frequented watering-place and is historically interesting as the scene of Brian Boroimhe's victory over the Danes in 1014. Pop. 5105. Cloots (klöts), JEAN BAPTISTE, BARON a singular character well known during the revolutionary scenes in France under the appellation of Ana-charsis Cloots. He was born at Cleves in 1755, and was brought up at Paris. He became possessed of a considerable fortune, which he partly dissipated in fantastic schemes for the union of all peoples and races in one democratic brotherhood. The outbreak of the French revolution afforded him the kind of career he sought. In 1790, Cloots pre-sented himself at the bar of the national assembly, accompanied by a considerable number of enthusiastic followers of vari-ous nationalities, English, German, Italian, Spanish, Arabians—or Pari-sians dressed up as such. He described himself as the orator of the human race, and demanded the right of confederation, which was granted him. His enthusi-ass for radical reforms, his hate of Christianity and of royalty, and a gift of 12,000 livres on behalf of the national defense, gained him in Sept., 1792, elec-tion to the national convention, in which he voted for the death of Louis XVI in the name of the human race. But be-coming an object of suspicion to Robes-pierre, he was arrested and guillotined March 24, 1794. He met his fate with great indifference. Cloquet (klo'kwet' a village of Carl-ton Co., Minnesota. 30 miles w of Dubth

Clotning
supported by more than 100 members and opposed by less than 40, or have the support of 200 members. The introduction of the closure was intended to prevent debates from being too long continued. Cloth, a fabric formed by interweav-or cloth, ing threads or tibers of animal or vegetable origin, as wool, hais, cotton, flax, hemp, etc. Cloth may also be made by felting as well as by weaving. See Cotton, Woolen, Silk, etc.
Clothes-moth, the name common to genus Tinéa, whose larve are destructive to woolen fabrics, feathers, furs, etc., upon which they feed, using at the same time the material for the construction of the cases in which they assume the chrysalis state.
Clothing (klö'thing), the clothes or dress, that is, the artificial overings, collectively, which people wear. Nothing is more necessary to comfort than that the body should be kept in nearly a uniform temperature, thus preventing the disturbance of the iskin by the influence of heat or cold. A considerable degree of cold often lays the found scrofula and consumption. The only kind of dress that can afford the protection required by the changes of temperature to woold is capable of affording must wear it next to the skin; for it is in this situation only that its health-preserving power coming an object of suspicion to Robes-pierre, he was arrested and guillotined March 24, 1714. He met his fate with great indifference. Cloquet (klo'kwet) a village of Carl-con be felt. The great advantage of wo of Duluth. It has lumber and paper mills, etc. I op. (1920) 5127. Close Corporation, a corporation its own vacancies, the election of mem-bers not being open to the public. Close-hauled, in navigation, said of a ship when the gen-stants the wind as possible. Closure (klo'fur), a rule in British against the wind as possible. Closure (klo'fur), a rule in British adopted in 1887 by which, at any time after a question has been proposed, a mo-tion may be made with the speaker's or chairman's consent 'That the question be now put,' when the motion is imme-diately put and decided without debate or amendment. So also if a clause of a bill is under debate a motion that it stand or be added may be put and carried in the same way. The motion must be



#### Cloture

#### Cloud

thread. The three appear in Hesiod as the daughters of Zeus and Themis. In art Clotho was represented by the spindle, Lachesis by the globe, and Atropos by a undial.

sundial. Cloture, the closing of debate in a leg-silative body. The lack of any provision for this in the Senate of the United States has often led to intermin-able debates, and in certain cases to the defont of important bills with majorities in their favor, through being talked to death by a minority. On March 8, 1917, a bill was passed establishing the right to

thick, heavy clouds often touch low moun-tains, steeples and even trees. Clouds differ much in form and character, but are generally classed (following Luke Howard, in his Essay on Clouds), into three simple or primary forms, viz.:--1. The cirrus, so called from its resemblance to a lock of hair, and consisting of fibers which diverge in all directions. Clouds of this descrip-tion float at a great height, usually from 3 to 5 miles above the earth's surface. Long, strenky forms are called mare's tails. 2. The cumulus or heap, a cloud which assumes the form of dense convex or



Cloud-Cirrus.

Cloud-Cumulus.



#### Cloud-Stratus.

close debate under certain conditions. It provided that in two days after notice in writing has been given by 16 Senators the closing of debate on a particular bill shall be called for, and, if settled in the affirmabe called for, and, it settled in the amrma-tive by a two-thirds vote, that bill shall be held before the Senate until its final disposition, each Senator being limited to one hour's debate in all on the bill, with its amendments and motions arising from it. Also after the two-thirds vote no amendment shall be offered without unanimous consent.

mous consent. Cloud, a collection of visible vapor or the atmosphere at some altitude. They differ from fogs only by their height and less degree of transparency. The average height of clouds is calculated to be 2½ miles, thin and light clouds being much higher than the highest mountains, while

#### Cloud-Nimbus

Cloud-Nimbus. conical heaps, resting on a flattish base; called also summer-cloud. Under ordi-nary circumstances these clouds accom-pany fine weather, especially in the heat of summer, and accompany a brisk wind. Each cumulus cloud is at the top of a column of ascending warm, aqueous vapor. They attain their greatest size early in the afternoon and gradually de-crease towards sunset. 3. The stratus, so named from its spreading out uni-formly in a horizontal layer, which re-ceives all its augmentations of volume from below. It belongs essentially to the night, and is frequently soen on calm summer evenings after sunset ascend-ing from the lower to the higher grounds, and dispersing in the form of a cumulus at sunrise. These three primary forms of clouds are sublivided as follows:—1. The cirro-cumulus, composed of a collec-tion of cirri, and spreading itself fre-

#### Cloud

Cloud quently over the sky in the form of beds of delicate snowflakes. 2. The cirro-stratus or wane-cloud, so called from its being generally seen slowly sinking, and in a state of transformation; when seen in the distance, a collection of these clouds suggests the resemblance of a shoal of fish, and the sky, when thickly mottled with them, is called in popular language a mackercl sky. 3. The cu-mulo-stratus or twain-cloud, one of the grandest and most beautiful of clouds, and consisting of a collection of large, fleecy clouds overhanging a flat stratum or base. 4. The nimbus, cumulo-cirro-stratus, or rain-cloud, recognizable, ac-cording to Mr. Howard, by its fibrous border and uniformly gray aspect. It is a dense cloud spreading out into a crown of cirrus and passing beneath into a shower. It presents one of the least attractive appearances among clouds, but it is only when the dark surface of this cloud forms its background that the splendid phenomenon of the rainbow is exhibited in perfection. Cloud (klö), ST., a town, France, de-s. w. from Paris, charmingly situated on the slope of a hill overlooking the river Seine. It is celebrated for its chateau and its magnificent park, a favorite holiday resort of the Parisians. As the residence of the monarchs of France, St. Cloud is historically inter-esting. Louis XIV bought the old cha-teau and presented it to his brother, the Duke of Orleans to Marie Antoinette, and after the revolution chosen by Napoleon for his residence. It was the summer residence of Napoleon III, and was greatly damaged in the Franco-German War. Pop. 7195. Cloudberry (cloud'beri), or Moun-tenture of that fourd plentifully

highly distinguished himself. On his return from a tour in America (1852) he was appointed an examiner attached to the educational branch of the privy-council office. He died in 1861, at Florence, while returning from a jour-ney to Greece. His poems, of which the best known are Bothie of Tober-na-Vuolich, Amours de Voyages, and the Tragedy of Dipsychus, were published, along with a memoir, in 1862. **Clove Bark**, or CULLI/AWAN BARE, of the Molucca Islands (Cinnamómum Culilawan). It is in pieces more or less long, almost flat, thick, fibrous, covered with a white epidermis of a reddish-yel-low inside, of a nutmeg and clove odor, and of an aromatic and sharp taste. In commerce the name is also given to the bark of the Mytus caryophyllata. It is of a deep-brown color, very thin an hard, and has similar properties to cin-namon.

attractive appearances among clouds, but is of a deep-brown color, very this and it is only when the dark surface of this hard, and has similar properties to cinclud forms its background that the nard, and has similar properties to cinclud forms its background that the nard, and has similar properties to cinclud forms its background that the nard, and has similar properties to cinclud forms its background that the nard, and has similar properties to cinclud forms its background that the nard, and has similar properties to cinclud forms its background that the nard, and has similar properties to cinclud forms its background that the nard, and has similar properties to cinclud forms its background that the nard, and has similar properties to cinclud for the partment Scine-et-Oise, 6 mile (Klöver, tré-Giu), a name of different spent for the science of the monarchs of context and its magnificent park, a nout 150 species. Some are weeds, but favorite holiday resort of the monarchs of crise a trensidence of the monarchs of crise a biennial, and sometimes, estimate and presented it to his brother, the plant. This is the sime much of the clover, is a most valuqueen of Charles I of England, during able plant for pasturage over the whole the revolution chosen by Napoleon for his residence. It was sold by Louis Phi of Europe, Cantal Asia, and North ippe of Orleans to Marie Antoinette, and was this species. The howers of residence of Napoleon III, and was this species. The plant is from 4 to S meetime also in other countries; it strongly recommende for cold, moist, chamdroff, and the bramble growth. T. medium, permial red or or blackberry. The plant is from 4 to S modew clover, much resembles the common red lor, and shout the size of a bramble.
 Cloudberry (kluff). ARTHUR HUGH, an spreading to other countries. It bears of the form a less compact head. Its produce the form a less compact head. Its produce or blackberry. The plant is from 4 to see some or II inches high, with a rather large mon red,

100 -

#### Clover-weevil

dens. The name clover is often applied to plants like medick and melilot, cul-tivated for the same purpose and be-longing to the same natural order, although not of the same genus. Clover-weevil, genus Apion, differ-ent species of which, or their larvæ, feed on the leaves and seeds of the clover, as also on tares and other leguminous plants. A. spricens, of a bluish-black color, and little more than a line in length, is especially destructive. Cloves (klövz), a very pungent aro-matic spice, the dried flower-ouds of ('aryophyllus aromaticus, a na-tive of the Motucca Islands, belonging to the myrtle tribe, now cultivated in Sumatra, Mauritius, Malacca, Jamaica, etc. The tree is a handsome evergreen from 15 to 30 feet high, with large, ellip-tical, smooth leaves and numerous pur-plish flowers on jointed stalks. Every



Clove (Caryophyllus aromaticus).

part of the plant abounds in the volatile oil for which the flower-buds are prized. The spice yields a very fragrant odor, and has a bitterish, pungent, and warm taste. It is sometimes employed as a hot and stimulating medicine, but is more frequently used in culinary prep-arations. arations.

dox, while most of the western princes were Arians. It now became his ob-ject to rid himself by any means of all the other Frankish rulers, in order that he might leave the whole territory of the Franks to his children; and in this purpose he succeeded by treachery and cruelty. He died at Paris, which he had made his capital, on Nov. 27, 511, in the thirtieth year of his reign. In the last year of his reign Clovis had called a council at Orleans, from which are dated the peculiar privileges claimed by the kings of France in opposition to the pope. pope.

the kings of France in opposition to the pope. Clown, the buffoon or practical jester formances. On the old English stage the clown was the privileged laughter-provoker, who, without taking any part in the dramatic development of the piece represented, carried on his improvised jokes and tricks with the actors, often indeed addressing himself directly to the audience instead of contining himself to the scheduled play upon the stage. In Shakespere's dramas a distinct part is assigned to the clown, who no longer appears as an extempore jester, although the part he plays is to a certain extent in keeping with his traditional functions. He is now contined to the pantomime and the circus, in the former of which he plays a part allied to that of the French pierrot. Cloyne (kloin), a town in Ireland, 16 miles E. by 8. of Cork, the seat of a Roman Catholic bishop. From IG38 to 1833 it was the see of a bishop of the Established Church, but in the latter year it was united with Cork and Ross. Pop. about 1400.

latter year it was united with Cork and Ross. Pop. about 1400.

Club, a select number of persons in the habit of meeting for the promotion of some common object, as promotion of some common object, as social intercourse, literature, politics, etc. It is a peculiarly English institution, which can scarcely be said to have taken root in any other country except Amer-ica. The coffee-houses of the 17th and 18th centuries are the best representa-tives of what is meant by a modern club, while the clubs of that time were com-monly nothing but a kind of restaurants or tayerns where usual resorted to take **Clovis** (klö'vis; from old Ger. Chlod-ica, mod. Ger. Ludwig, Fr. 18th centuries are the best representa-touris). King of the Franks, born 465, tives of what is meant by a modern club, succeeded his father Childeric in the succeeded his the country between the Somme and the free to enter a coffee-house, it was neces-country between the Somme and the formetly received as a member of a club, tilda, a Burgundian princess, at length according to its regulations, before he converted him to Christianity, and on was at liberty to enter it. Among the Dec. 25, 496, he was baptized with sev- earliest of the London clubs was the Kit-eral thousands of his Franks at Rheims, cat Club, formed in the reign of Queen and was saluted by Pope Anastasius as Anne, among whose forty members were 'most Christian king,' he being ortho-

#### Clubbing

of the day. Another club formed about the same time was the Beefsteak Club. Originally these two clubs had no pro-nounced political views, but in the end they began to occupy themselves with politics, the Kitcat Club being Whig, and the Beefsteak Club, Tory. Perhaps the most celebrated club of last century was that which was first called The Club par excellence, and numbered among its members Dr. Johnson, Sir Joshua Reynolds, Edmund Burke, Oliver Gold-smith, Edward Gibbon, and others. The most important London political clubs of the present day are the Carlton Club, a sort of headquarters for the Con-servative party, and the Reform Club, the building belonging to which stands next to that of the Carlton Club, the great club of the Liberal party. Similar clubs exist also in Edinburgh, Glasgow, and other cities of the kingdom. Some of the London clubs are for ladies as well as gentlemen, and one or two for ladies alone. Clubs are often provided with reading-room and library, smoking-room, billiard-room, coffee-room, 'dining-room, drawing-room, etc., and also may have a certain number of bedrooms. Besides being convenient for social intercourse, members may obtain their meals in them, served in the best style and at moderate a certain number of bedrooms. Besides being convenient for social intercourse, members may obtain their meals in them, served in the best style and at moderate cost. New members are admitted by bal-lot, and pay a certain entrarce fee as well as an annual subscription. The English clubs have been imitated in dif-ferent countries in Europe, but not with great success, but clubs are widely spread through the United States, even in many comparatively small cities. The large cities are well provided with them, while women's clubs are so numerous that they have long ceased to be an innovation. In France, where clubs were introduced at an early period, they soon became asso-ciations purely political in their nature, and had no uniform and regular form, as they were only tolerated during revolu-tionary epochs. The Club des Jacobins, the Club des Feuillants, the Club des Cordeliers, and the Club de Montrouge, were the most famous clubs of the time of the first French revolution. After the revolutions of 1848 hosts of clubs started into existence in France, Germany, and Italy; but the institution has always failed to take a deep hold on European continental society. **Clubbing**, a diseased condition of family, produced by the myxomycetous

**Clubbing**, a diseased condition of **C** family, produced by the myxomycetous so fungus known as *Plasmodiophora bras*-re sica, consisting in the lower part of the W stem becoming swollen and misshapen. s. Lime is used as an antidote.

of con-Club'foot (Lat., talipes), genital distortion foot. There are several varieties. Some-times the foot is twisted inwards (T. varus); sometimes the heel is raised and the toes only touch the ground (T. equinus); sometimes the foot is twisted outwards (T. valgus); or it rests only on the heel (T. calcaneus). In most cases the deformity is curable by modern surgery. surgery.

surgery. Club-hauling, a method of tacking situations by letting go the lee-anchor as soon as the wind is out of the sails, her head being thus brought to the wind, and then cutting the cable and trimming the sails as soon as she pays off. Club-moss, the common name of the plants of the order Lyco-nodiacem, or more particularly of the

poliaceæ, or more particularly of the genus Lycopodium. See Lycopods. Clue (klö), of a square sail, is the lower corner; and hence olso-lines and clue-garnets, tackles to truss the clues up to the yard. Clunes (klöns), a mining town in the Australian colony of Victoria, 120 miles northwest of Melbourne. Pop. 2426.

2426.

2426. Cluny (klū-nē), a town of Eastern miles N. w. Macon, pop. 3601. Here was a Benedictine abbey, founded in 910, at one time the most celebrated in France, having. 2000 monastic communities di-rectly under its sway in France, Italy. Spain, England, etc., the inmates of which formed the congregation of Cluniac monks. Most of it was destroyed in 1789, and the present town is to some extent built of its *débris* and occupies its site. site.

Clupeidæ (klö-pë'i-dë), the herring family, the typical genus being Clupëa, the herring, a family of fishes which includes the herring, sprat, white-bait, pilchard, etc.

Clusiaceæ. See Guttiferæ.

Clustaccez. See Gamperz. Clustered Column, in architecture, a pier which seems to consist of several columns or shafts clustered together; they are some-times attached to each other throughout their whole height, and sometimes only at the capital and base. Clutha (klu'tha), the largest river in New Zealand, in the southern part of the Middle Island. It receives the waters of Lakes Hawea, Wanaka, and Wakatipu, and flows in a s. E. direction, having a length of 150 miles. It is called also Molyneux.

#### Clyde

Clyde (klid), a river of Scottand which has its sources amid the that separate Lanarkshire from and Dumfries Clyde (Ind), a river of Scotland, which has its sources amid the hills that separate Lanarkshire from the countries of Peebles and Dumfries and forms an extensive estuary or firth before it enters the Irish Sea, at the southern extremity of the island of Bute. From its source to Glasgow, where navigation begins, its length is 70 or 80 miles. Near Lanark it has three cele-brated falls—the uppermost, Bonnington Linn, about 30 feet high; the next, Cora Linn, about 30 feet high; the next, Cora falls, altogether about as high; and the lowest, Stonebyres, also three distinct falls, altogether about 80 feet. The Clyde, by artificial deepening, has been made navigable for large vessels up to Glasgow, and is the most valuable river in Scotland for commerce. See Glasgow. Clyde, 10150 an American (1841-Glasgow, and is the most valuable river in Scotland for commerce. See Glasgow. Clyde, JOHN CUNNINGLAM (1841-1915), an American clergyman and author, born at White Deer Valley, Lycoming Co., Pa.; served in the Civil war; graduated at Lafayette College, 1840, and studied for the ministry at Princeton Theological Seminary, gradu-ating in 1866. He was successively pastor of the Presbyterian churches of Centre-ville, Iowa (1869-70), Shenandoah, Pa. (1870-72), Frazer, Pa. (1872-71), and Blosmsbury, New Jersey (1879-1901). He was president of the Northampton County Historical and Genealogical So-ciety and chaplain of Lafayette Post 217, G. A. R. Among his many publications are: History of the Irish Scitlement of Pennsylvania; Rosbrugh, a Tale of the Recolution; Life of James (Joffn; Guide to Non-Liturgical Prayer; Mohammedan-ism a Pscudo-Christianity.

to Non-Litingical Prayer; Monammeaan-ism a Pscudo-Christianity. Clyde, Lond, Sir Colin Campbell, was born in Glusgow, in 1792, where his father, John McLiver, a native of Mull, worked as a cabinetmaker. His mother's maiden name was Campbell, and she was the daughter of a small pro-prietor in Islay. By the assistance of his mother's relations he was educated at the High School of Glasgow, and Lerwards at the Military Academy, Gosport. In 1808 he received an ensign's commission in the 9th Regiment of Foot, having previously changed his name to Campbell, at the suggestion of his maternal uncle, an officer in the army. He served in Spain under Sir John Moore and Wellington, being engaged in the battles of Barossa and Vittoria, and hav-ing displayed distinguished gallantry at the siege of San Sebastian, where, as wounded. In 1819-25 he was in the West Indies. In 1835 he attained the

rank of lieutenant-colonel. In 1842 he was in China in command of the 98th Regiment, and on the termination of the Chinese war took active service in India, where he acquired such reputation in the second Sikh war as to receive the thanks of Parliament and the title of K.C.B. In 1854 he became major-general, with the command of the Highland Brigade in the Crimean war. His services at the battles of Alma and Balaklava, and dur-ing the war generally, were conspicuous. the Command of the Frightand Drighten in the Crimean war. His services at the battles of Alma and Balaklava, and dur-ing the war generally, were conspicuous, so that on the outbreak of the Indian mutiny he was appointed to the chief command there. Landing at Calcutta on August 29, 1857, he relieved Havelock and Outram at Lucknow, and crushed the rebellion entirely before the end of the year. For his services here Sir Colin received the thanks of both houses of Parliament, was created a peer with the title of Baron (1yde, and had an income of \$10,000 a year allotted him. In 1862 he was made field-marshal. He died August 14, 1863, and was buried in Westminster Abbey. Clyster (klis'ter), an injection or stance introduced into the lower bowel, usually for the purpose of expelling its contents, but sometimes also for the pur-pose of being retained, as when opium is thus administered in cases of diarrhea. Clytennestra (klitem-nes'tra), in sence of Agamemon in the war against Troy she bestowed her favors on Ægisthus, and, in connection with him, murdered Agamemon on his return from Troy, and, together with her paramour, governed Mycene for seven years. Her son Orestes killed them both. See Agamemon and Orestes. Cnidus (m'dus), or GNIDUS, and

Coach

#### Coadjutor

Coadjutor
To ride on horseback, the use of carriages being considered effeminate. They do not appear to have become common till regarded exclusively as vehicles for women and invalids. Later on they berner, especially in Germany, part of the appendages of royalty. They seem to have been introduced into England the wealthy classes. Hackney-coaches were then only twenty in number, and were they had to be applied for when wanted. In 1635, or when wanted into England the wealthy classes. Hackney-coaches were then only twenty in number, and were they had to be applied for when wanted. In 1636, or when wanted. In 1636, or when wanted. In 1636, or when wanted into England the wealthy classes. The first stage of 000 in 1602, to 800 in 1710, and to 1000 in 1761. Stage-coaches were introduced into England about the same time is hackney-coaches. The first stage on the event the century hey were started on the seventeenth century, and before the not of the century they were started on their speed was at first very moderate about 3 or 4 miles an hour. They could not first speed was at first very moderate a conveyance, the Flying Coach of an improved kind, which did the proven to London in 1784 and these continued of four days and a half. They stem of mail-coaches was established in London in 1784 and these continued of four days and a half. They were her means of traveling in England the introduction of coaches and they as late in the eighteenth century were here as taken by the rait was late in the eighteenth century where miles an hour, they was late in the eighteenth century were as taken by the rait was as the introduction of coaches and they as taken by the rait was as a they by the rait was as the introduction of coaches and they as taken by the rait was as the in the eighteenth century we for a stage-coach line was started be week to travel at first. In 1760 it took a week to travel at first. In 1760 it took a week to travel at first. In 1760 it took a week to travel at first. In 1760 it took a week to trav

**Coadjutor** (kö-a-jö'tor), a Latin term, nearly synonymous in its original meaning with assistant. The term is especially applied to an assistant pishop appointed to act for and succeed one who is 'oo old or infirm for duty.

Coagulation (kō-ag-ū-la'shun), the changing of a fluid into a more or less solid substance, or the separation of a substance from a solution, through the substance becoming more or less solid. Thus, albumin of egg can be dissolved in cold water, but if the solution be warmed, the albumin undergoes a change, separates out in white, flocky masses, and cannot again be redissolved in the water. Coagulation is well exem-plified by the 'curding' of milk and 'clotting' of blood.

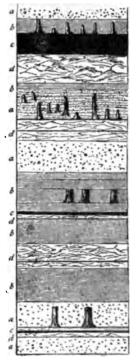
Coahuila (kö-à-wē'là), a state of Mexico, on the frontier of the United States, rich in woods and pastures, and having several silver-mines; area, 63,569 square miles; pop. 367,652. Coaita (kö'a-ti), Atëles paniscus, one of the largest of the S. Ameri-can monkeys, belonging to those known as spider monkeys, black in color, and very docile in captivity.

**Coal** is formed from vast deposits of vegetable matter of the carbonifer-ous age, during which the growth of plants was luxuriant. In course of time decay took place in the fallen plants and succeeding centuries covered them with a sediment of mud and sand that arrested their destruction and exerted a pressure that combined with heat and chemical ac sediment of mud and sand that arrested their destruction and exerted a pressure that combined with heat, and chemical ac-tion slowly drove off most of the hydrogen and oxygen contained in the vegetation, leaving the carbon behind. Hence there are few traces of its vegetable origin found in coal. Nevertheless the outlines of leaves and stems that have entered into its formation are sometimes seen, and in sandstones, clays and shales with which coal is found the plants from which it originated are found distributed freely in the fossil state, and, more rarely, the trunks of trees with roots extending down into the subjacent clay formation. These, though replaced by mineral sub-stances, have preserved their structural features so perfectly that botanists have been able to establish their affinity with existing species. Tree fossils of large size so recognized have been found to be re-lated closely to the arancavia as found in South America and Australia. The com-moner forms of vegetable life found in the rocks of the coal formation include the sigillaria and stigmaria, the lepidoden-dron, the calamite and tree ferns. From the animal fossils in coal it is to be as-sumed that some deposits occurred in fresh water, probably lakes, while others appear to have occurred at the mouths of rivers reaching salt water. The period during which the transformation of the yegetable into the mineral substance was



#### Coal

effected was of long duration, so long as to be quite undeterminable. Anthracite, or hard coal, has undergone a greater degree of decomposition than bituminous or soft coal. It is the oldest of the coal formations and contains most uncombined carbon, the percentage being from 90 to 94%, the remainder consisting of hydrogen, oxygen and ash. It is pure black, or with a bluish metallic lustre and has a specific gravity of 1 46 or about the same as that of the hard woods. It burns



9-3

As its name indicates, it contains bitumen. As its name indicates, it contains bitumen, a soft, mineral substance, a native mix-ture of hydrocarbons, oxygenated, that ozzes out when it is subjected to heat. It contains from 75% to 85% of carbon, contains from 75% to 85% of carbon, with traces of sulphur, and a greater per-centage of hydrogen and oxygen than an-thracite. It is black and on its smooth surfaces is glossy, but lacks the bluish lustre that sometimes appears in hard coal. It is also softer than anthracite. Its specific gravity is 1.27. In burning it emits a yellowish flame, much greater than that given out by hard coal, and gives less heat, while its imperfect com-bustion produces heavy, black smoke and diffuses disagreeable gases. The hydro-carbons can be driven off as gases by heating the coal without access of air. In this way one kind of illuminating gas is

theating the coal without access of air. In this way one kind of illuminating gas is made and the carbonaceous residue is coke. Cannel, or gas coal, is of the bitumin-ous variety, but contains less uncombined carbon than the coking or furnace kinds; it burns freely and is used largely in mak-ing illuminating gas. Lignite is of comparatively very recent formation, intermediate between bitumin-ous and peat; indeed, a period of less than five hundred years is known to have con-verted timber into a sort of lignite. The percentage of carbon in lignite, which is frownish in color, never exceeds 70%, and the ash shows that a considerable quanthe ash shows that a considerable quantity of earthy matter enters into its com-position. It exhibits much of the struc-ture of the wood from which it is formed. Its heat-giving property is low, hence it can be used only where a hot fire is not needed, but it is very volatile. *Peat* is the latest of the coal formations.

It has undergone but a partial change from its original state and the slight pressure to which it has been subjected by the small covering of sediment has given it but little density; it contains over 50% of volatile matter. It forms in boggy of Section of part of a coal-field, showing a succession of buried trees and land surface; a, succession of buried trees and land surface; a succession of buried trees and land surface; a succession of buried trees and land surface; a succession of buried trees and surface; a under-clays or soils. The buried trees and land surface; and deposits no soot in the chimneys, nor does it give off gas to any extent. Hence it is the ideal fuel for domestic use and for furnaces and malt kilns. It is less abundant than other varieties and greater in price. It was first discovered in Penn-sylvania in 1791. Bituminous, or soft coal, is of later formation than anthracite; it hus under-gone less pressure and is less decomposed. 9-3ground from plants undergoing decay and

**Coal Brass**, the iron pyrites found in coal measures, so named on account of its brassy appearance. Coal containing much pyrites is bud for iron smelting, and it is unpleasant for domestic use on account of the sulphurous acid which it gives aff on burning. Coal brass is useful in the manufacture of copperas, and in alkali works.

copperas, and in alkali works.
Coalbrookdale (köl'bruk-däl), an English coal and iron producing district in Salop, along the bank of the Severn.
Coaldale, a borough in Schuylkill Tamaqua. It has coal-mining interests.
Pop. (1920) 6336.
Coal-fish, a species of the cod genus (Gadus carbonarius), named from the color of its back. It grows to a length of 2½ feet, and is found in great numbers about the Orkneys and the northern parts of Britain. In Scotland it is generally known as the sethe or seath. ti is generally known as the sethe or scath. Coal Gas, the variety of carburetted hydrogen, produced from coal, which is used for common gaslight. Coaling Stations, stations estab-lished at various Coaling Stations, stations estab-lished at various important points over the ocean, where ships, both of the navy and the mercantile marine, may obtain supplies of coal. The utility of such stations, when properly fortified, as points of refuge, defense, and repair in the event of war can hardly be over-estimated. Britain has very many of them in accordance with the width of its interests, the United States, as yet, comparatively few. Coalition (kō-a.li'shun), a term used in diplomacy and polities to denote a union between different parties not of the same opinions, but who agree to act together for a particular object. Among states it is understood to mean theoretically something less general in its ends and less deeply founded than an alliance.

Coal Measures, the upper division of the carboniferous system, consisting of beds of sandstone, shale, etc., between which are coal-seams.

shale, etc., between which are coal-seams. Coal Mining. The depth, thickness and direction of the coal seams having been determined by prospecting, the next step is the provision of shafts. Several considerations govern their location, such as the contour of the surface, the adjacency and availability of transportation, the facility of generating power, the inclination of the strata, the presence of faults and the method of work-ing the coal. In cases where the seams outcrop at the surface, drifts are driven

Coal Mining. be prontably mined is about 5000 re although in some cases, as in Belgin mines are worked at a depth of 4000 for The regulations governing the mining coal vary considerably in different cou tries and in the United States there likewise a lack of uniformity and chang are frequently made so that only made

are frequently made, so that only general statements are useful here. *Working* is carried on by practical two methods, known as pillar work an long-wall work. The first comprise

# **Coal Mining**

'pillar-and-stall,' 'bord-and-pillar' and 'room-and-pillar' and is done by driving roads or stalls through the coal and con-secting them by cross-passages, leaving pillars of coal between them to support the roof as the workings advance. When sufficient work has been effected in this sammer the pillars are cut away and the roof is supported by heavy timbers. In the second, or long-wall work, all the coal is removed as the work proceeds from the pillar at the shaft, the face gradually extending. The waste or 'goaf' is stacked behind, and 'hrough this com-municating roads are left open. This is what is known as long-wall working for-ward. The opposite plan, or long-wall working back, is effected by driving the roads to the outside or boundary of the mine and then taking the coal backward towards the shaft. This plan avoids the necessity of keeping roads open through the warte coal and is so far more desirable, but, of course, it involves greater capital outlay. Where spontaneous combustion is probable this plan is chiefly used. Long-wall working is best adapted to thin seams; where the seams are thick, or near the surface, or beneath towns, indeed in all cases where there is danger of subsi-dence the pillar-and-stall method is practised. In the United States it is the one largely used. In getting the coal it is indispensable that the workings be prop-erly supported. This is carried out by timbering the roofs and sides of roadways and the coal faces, and for this purpose erly supported. This is carried out by timbering the roofs and sides of roadways and the coal faces, and for this purpose the best materials are pine, fir, and oak. which are creosoted. In the pillar method there is, of course, less need for timber support, the pillars themselves affording the chief protection, but timber roof props are also used to prevent the fall of loose portions, and at the road ways adjacent to the faces cross-pieces are ased. supported by props or hitches in the

or by biasting. All coal seams, except anthracite, have planes of cleavage which admit of ready splitting. Roads driven in the direction of such planes are known as 'ends,' and those driven across them are styled 'bords,' or 'boards,' the latter enabling easier working than from the 'ends.' Cutting by mechanical means is used chiefly in thin seams because of the increased output they allow, the greater speed of the operation, that they produce less small coal, and that there is the minimum risk of the falling of the roof. The principles of operation in the two types of cutters used in the United States are those of a pick or drill and a chain-cutter. The former gives a rapid succes-sion of sharp blows with a long, chisel-like pick; the latter operates with a series of cutting wheels rotating on an endless

sion of sharp blows with a long, chisel-like pick; the latter operates with a series of cutting wheels rotating on an endless chain driven by a motor, either compres-sed air or electricity. Gunpowder is used in making the blast in wet mines where there is no gas present, but in dry and dusty ones, or where gas is present, it is necessary to use some flameless high ex-plosive, which in exploding discharges an aqueous vapor that destroys any tendency to ignite coal dust or gas, if present. Hauling. Coal is hauled from the work-ings to the shaft by hand labor, horses, or mechanical power; hand labor, horses, or mechanical power; shall abor, obvi-ously, is used only in small mines. Mechanical power systems are: (1) the jig or self-acting incline, feasible only where the shaft's bottom is at the lowest point of the coal seam, in which case the cars loaded with coal running down the incline pull up the empty ones, the wire rope attached to the descending load being fastened over a pulley or drum at the upper end of the incline and its other end attached to the returning empty cars. attached to the returning empty cars. Friction rollers set at intervals between Friction rollers set at intervals between the rails on the incline carry the rope. Where a double line of rails cannot be used, the single track is provided with a pass half-way where the descending and ascending cars meet and pass. Sometimes a single line is employed throughout, when a balance weight runs between the rails alternately, being drawn up by a loaded cars and drawing up an empty one. (2) Single rope haulage is employed where the shaft's bottom is at the top of an incline; in this case the full cars are hauled up by a winding engine and the empty set run back by gravity. The most generally used system is the endess rope which is adapted not only to level seam-but may be advantageously used on steep Tail of loose portions, and at the road Friction rollers set at intervals between ways adjacent to the faces cross-pieces are the rails on the incline carry the rope. used, supported by props or hitches in the Where a double line of rails cannot be side wall. Still other strengthening is used, the single track is provided with a effected in the haulage ways with steel and iron supports, brick arch work or brick walls and girders. *Getting the Coal.* The first stage is when a balance weight runs between the bringing down the coal, which is done rails alternately, being drawn up by a either by blasting without preliminary loaded cars and drawing up an empty one. work, and is called 'shooting off the (2) Single rope haulage is employed solid'; or by blasting preceded by under-where the shaft's bottom is at the top of cutting or 'shearing.' so as to give more an incline; in this case the full cars are than one face to the action of the ex-blasting values that grooves be cut empty set run back by gravity. The most vertically parallel to the walls. In the generally used system is the endess rope former. called 'holing.' a notch or groove which is adapted not only to level seam-is cut in the floor of the seam, extending but may be advantageously used on steep about three feet back from the face. leav-roads. Usually, a double line of road is ing the overhanging rock supported by better. The cars run in sets of ten or timbers called 'sprags,' to fall of itself twelve, and a stretching pulley is used to the order and the state of the seam of the seam of the state of the order of the seam of the seam of the state of the order of the seam of the twelve, and a stretching pulley is used to timbers called 'sprags,' to fall of itself twelve, and a stretching pulley is used to

#### Coal Mining

#### Coal Mining

keep the rope taut when the pull of the load lessens. The endless chain system requires a double roadway, one of which accommodates the full cars and the other requires a double roadway, one of which accommodates the full cars and the other the empty. The chain passes over a pulley driven by an engine so placed that the chain rests on the top of the car and passes round a second similar pulley at the far end of the plane. The endless rope system overhead is substantially similar to the endless chain plan. Main and tail rope haulage is employed where the incline is insufficient or not uniform, and a sec-ond rope is needed to haul back the empty cars. One road only is required, as in the case of single rope haulage. A second rope, the tail rope, supplements the main rope that runs direct from the engine drum to the head of the loaded cars; the tail rope runs from a drum on the same shaft as the main rope drum, along the side of the roof or rondway, and passes around a return pulley at the end of the road to the end of the set of loaded cars. This rope draws buck the empty cars as the main rope hauls in the loaded cars. This rope draws buck the empty cars as define in the United States and in Europe in mines where mine roadways are flat or have only slight inclines by loco-motives operated by compressed air, elec-tricity and internal combustion. In the case of scams too shallow to admit of using cars for hauling, conveyors are used, operaced by compressed air or electricity; these conveyors are low wagons jointed in sections, from which the call is discharged

using cars for hauling, conveyors are used, operated by compressed air or electricity; these conveyors are low wagons jointed in sections, from which the coal is discharged into cars at the bottom of the shaft. Raising the Coal to the Surface from the bottom of the shaft on the arrival of it the cars from the workings is effected by running them into the cage over rails to which they are locked. The cage is constructed of a framework of vertical iron or steel bars and has a top bar to which the disting rope is attached. The cage is provided with a deck or decks, in some cases as many as five, and each deck will hold two cars. The cage runs within guides of wood or other material affixed to the walls of the shaft; sometimes four guides are used, but more frequently three, two on one side of the shaft and one on the opposite side, placed intermediate as related to the guides on the wall facing. By some managers only two guides are two in ches; this rope is attached by tackling chains to the cage. The hauling or drawing rope is carried over a head gear or pulley frame at the top of the shaft and the diameter driven by the winding engine. This gear of the optice is the optice of the shaft and the shaft some the shaft and the shaft a

# or frame is from 80 to 100 feet above the or frame is from 80 to 100 feet above the surface level to give head room to the cage, the landing platform being generally placed at some height above the ground. The head gear is provided with automatic devices to avoid disaster, such as detach-ing hooks that operate in case of over-winding; safety catches are also furnished to hold the cage should it get out of con-trol or become detached from the rope. On reaching the platform at the ton of the trol or become detached from the rope. On reaching the platform at the top of the shaft the cars move by gravity to a weighing machine and then to the 'tip-ple,' a cage turning upon a horizontal axis that is devised to discharge the load in the first half of the rotation and re-stores the car to its normal position in the second, after which it is drawn by an end-less chain, or creeper, fitted with grips or hooks, to the cage, to resume its trip to the workings.

Scond, after which it is drawn by an end-less chain, or creeper, fitted with grips or hooks, to the cage, to resume its trip to the workings. *Ventilation* is one of the most import-ant of the problems with which coal mine operators have to grapple. Not merely has the impure air to be drawn from the the workings, but the possible presence of gases must be considered. Ventilation is obtained by keeping in movement in the same direction a large volume of air which is brought from the surface by the 'downeat' and is carried out of the workings by the 'upcast' shaft. To effect this, powerful mechanical means are needed. The method principally used is exhaustion by machinery. It is sometimes done by the rarefaction of the air in the 'upcast' shaft by means of a furnace at the bottom of the shaft. The furnace may be worked by the return air where there is no gas, but it is far better to take fresh mir directly from the 'downeast,' and never must the return air from a fiery mine be allowed to reach the furnace. Ventilation by exhaustion is conducted by two methods, direct exhaustion and centrifugal displacement of the air to be removed. The latter is more generally adopted, as the weight of the machines required by the former results in too slow a rotation. This method drives the heated air at the bottom of the shaft forward and upward through it, through the pres-sure of the colder air behind it. In cen-trifugal displacement, fans are placed at the top of the 'downeast' shaft in some cases. There are several kinds of centrifu-gal fans, but the main essential is to secure great speed with a minimum of weight and size. In furnishing an indis-pensable volume of fresh air to the work-ings at all times, calculations must include the presence or absence of gases. In order that all the workings may be supplied with fresh air, it becomes necessary to split or divide the current at different

# **Coal Mining**

points in its path and convey it directly to the places where it is needed. It is further necessary to prevent the mixing of an intake current with a return current; this is done by passing one current over the other by means of an air-crossing, over the other by means of an air-crossing, and providing temporary partitions, 'brattlees,' constructed with wood or with wood and cloth, in cases where the intake and return airways pass along the same passage, thus separating the currents. Where the workings reach great distances from the shaft, very powerful ventilating fans must be used to overcome air resist-ance and from 250 to 500 II. P. engines are emoloyed. are employed.

Lighting fills an important part in the operation of collicrics. In mines that are free from gas naked lights may be used; oil lamps are commonly used in some parts of Europe, but electricity is fast displacing it.

Gas constitutes a great hazard to workers in coal mines. Explosions due to a sudden release of stored-up gas in coal masses, 'blowers' as they are called, are often given off at high tension and are too great for dilution by the ventilating current. Methane, marsh gas, or fire-damp, is the chief gas to be provided against. When diluted in from four to twelve times

is the chief gas to be provided against. When diluted in from four to twelve times its volume of atmospheric air, it is ex-olosive, but it burns quietly when the air dilution is greater or less than the pro-portons mentioned. Coal dust also con-stit les a serious danger in dry mines. Although it is not likely to be ignited by a naked light or flame, it may explode, even, though not usually, in the absence of gas. Against such dangers constant precaution is exercised, and protective measures are always under consideration. *Pumping.* In different mines the pump-ing of the water is of greater or less con-cern, depending on the depth of the work-ings. To keep the workings free of water it is drawn off into the shafts and from there pumped to the surface. Where, however, there is but a small quantity it is raised in tanks operated with the cage or independently of it. Sometimes the water is removed by syphoning, but this method, as well as that by tank removal, is quite unimportant in comparison with the method of continuous pumping. For this purpose an engine at the surface operates rods that pass down the shaft to the pumps, or the water may be forced to the surface by means of steam, com-pressed air, hydraulic pressure, or electric pumps set at the bottom of the shaft. To bring the water from the workings to the shaft's bottom pumps are also employed, of which there are several designs. shaft's bottom pumps are also employed, of which there are several designs. For the transmission of power to the

workings use is made of steam or com-pressed air, or water under pressure in pipes, electricity, or wooden or iron rods. Steam power is generally used, however, to operate the winding and hauling ma-chinery, but it is less advantageously used in transmitting underground power. Compressed air is a desirable agent for cutting, drilling, hauling and pumping machines, but it offers the disadvantages of greater cost and how efficiency. Hyof greater cost and low efficiency. Ily-draulic pressure is made use of also in underground pumping as a means of transmitting power. A system of endless wire ropes or chains operated from the surface has likewise been used for under-ground hauling, as well as to operate dynamos and drive ventilating fans. But electricity is displacing other powers for underground work, as well as for ventilat-ing, lighting and hauling. It has its the motor and of short circuiting, but ex-perience and care minimize these and its employment is rapidly extending in col-liery working.

liery working. Grading. As the coal leaves the tipple it falls on screens which sort it into va-rious sizes, after which it is carried on a rious sizes, after which it is carried on a long travelling belt, three to five feet wide, and is then sorted by hand and the waste removed. The grades usual in the Ameri-can market are: rice, pea, chestnut, stove, egg, broken and steam sizes. There are also buckwheat, which is smaller than pea, and cherry, which is larger. Coal is pea, and cherry, which is larger. Coal is sometimes put through a washing process, which is effected by conveying it by which is effected by conveying it by bucket-elevator to a stream of water, or by passing a stream of water through and over the coal which has been placed in a trough or tank. By this means the dirt, being heavier, sinks to the bottom, while the coal passes away with the water. The most extensive coal fields in the world are located in the United States. Its distribution in quantities of commer-cial value extends to twenty-circlet States

The distribution in quantities of commer-cial value extends to twenty-eight States and the Territory of Alaska. Anthracite is produced only in Pennsylvania, New Mexico and Arizona, the last two furnish-ing only about 100,000 tons per year. The States in which bituminous coal is worked area. Alabama Arizonan the distinguistics States in which bituminous coal is worked are: Alabama, Arkansas, California, Colorado, Georgia, Idaho, Illinois, Indi-ana, Iowa, Kausas, Kentucky, Maryland, Michigan, Missouri, Montana, New Mex-ico, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Tennessee, Texas, Utah, Virginia, Washington, West Vir-ginia and Wyoming. The chief producing of these are Pennsylvania, yielding over one-third of the total production, West Virginia, over one-seventh, Illinois, nearly one-ninth, and Ohio, nearly one-twelfth,

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the last three together yielding a little over nine-tenths of the product of Penn-sylvania. The total, in long tons, of anthracite yielded by Pennsylvania in 1015 was 79,459,836, and in value, \$184,-653,498. The aggregate output in the United States of bituminous in the same year included brown coal and ligaite, and the small output of anthracite outside of Pennsylvania was 442,626,426 short tons, of the value of \$502,037,688. It may be noted that of the coal-bearing formations in the four great producing States men-tioned, Illinois possesses about 42,000 square miles, West Virginia, 17,000, Penn-sylvania, 15,800, and Ohio, 12,000, to-gether about 87,000 out of a total coal-bearing area in the United States of about 200,000 square miles, and that their the last three together yielding a little bearing area in the United States of about 200,000 square miles, and that their annual output is over two-thirds of the total yield of the United States. The other important producing States are In-diana, about 16,000,000 tons, Alabama, 14,000,000, Kentucky, 13,000,000, Colo-rado, 10,600,000, Iowa, 7,000,000, Wyom-ing, 6,700,000, Tennessee, 6,300,000, and Virginia, 5,800,000. Comparing the yield of the United

ing. 6.700,000, Wennessee, 6.300,000, and Virginia, 5.800,000. Comparing the yield of the United States with that of Europe, it will be seen that Great Britain only approaches with a total of 300,000,000 tons in 1914, while Germany furnished in the same year 175,-000,0000 tons. France, Russia and Bel-gium each have large coal-bearing areas, the product of which has been of great importance in contributing to their manu-facturing and industrial progress. China, Japan and India also contain large coal-bearing area of the United States. Dis-cussions are frequently recurring as to the period of exhaustion of the coal supply. In the United States, broadly speaking, the resources are so great that such a crisis need not be very seriously consid-ered. But in Europe, where the reserves are so much less, the subject has created serious discussion and official investiga-tion.

years a great number of valuable products have been derived from it by distillation, such as ammonia, naphtha, creosote, car-bolic acid and benzene, while it is also the source of the whole series of aniline colors, and other dyes, of alizarine, salicylic acid, etc.

Coanza (kō-an'za), a large river West Africa, entering t Atlantic near 9° 10' s. of the

Coast Artillery, the term applied caliber, used for the armament of perma-nent works, chiefly on the seacoast. Their carriages do not subserve the purposes of transportation. Four systems of mount-ing are used with such artillery, i. e., the disappearing., the turret-, the barbette-and the mortar-carriage. In the United States these guns consti-tute the only system of permapent forti-

tute the only system of permanent forti-fication. For purposes of administration and instruction the coast artillery of the continental United States is organized into three districts—the North Atlantic, including all the forts from Maine to New York harbor, inclusive; the South Atlan-tic, including those from Delaware Bay to Texas, inclusive; and the South Pacific, including those from California to Wash-ington, inclusive. These districts are com-manded by colonels of the Coast Artillery Corps or by brigadier-generals appointed from that branch of the U. S. A. The forts of each harbor are grouped into commands called Coast Defenses, each designated by the name of the harbor on which located. In the outlying posses-sions of the United States the seacoast defenses. The Coast Artillery Corps is that part of the U. S. A. which is engaged in serving the seacoast guns. York harbor, inclusive; the South Atlan-

Coast Defense, the systematic pro-tection of a country crisis need not be very seriously consid-ered. But in Europe, where the reserves are so much less, the subject has created serious discussion and official investiga-tion. Coal-plants, such plants as have by Coal-plants, such plants as have by their remains formed coal, chiefly allied to the ferns, lycopods, and horse-tails. See Coal. Coal Tar, or GAS-TUR, a substance ob-coal for the manufacture of illuminating as, a dark-colored more or less viscid mass, consisting principally of oily hydro-carbons. It passes over with the gas into but being heavier than the latter, it is ensily separated from it when the whole comparatively little use; but in recent

## **Coast Guard Service**

Coast Guard Service an enemy intending to capture a city or to invade the country ; where their guns may command the entrance to a harbor or other approach by water; wherever they may cripple the enemy's attack on the defensive fleet, leaving it free to at-tack the enemy in turn; where forts may amist each other and co-operate in re-pelling an invasion or preventing a block-ade or a bombardment; where minor channels of approach may be closed or guarded, thus enabling the navy to give entire attention to the main channel, etc. Torpedo-boats, harbor-mines and the searchlight are all valuable aids for the forts. The unfortified coast, as well as the land approaches to cities, must be defended in time of war by whatever means are at command. National policy determines the character and extent of coast defense, and long-continued friendly relations with other countries may make extensive protection unnecessary. The history of modern coast defense in the United States begins with the crea-tion of the Gun Foundry Board in 1884, which was succeeded by the so-called Endicott Board in 1886. In its final re-port the Endicott Board fully and clearly set forth the general principles governing coast defense, and elaborated a suitable system. The changed conditions since 1884, due to the development of guns, smokeless powder, and all kinds of muni-tions of war, made it advisable to revise the system of the Endicott Board, and the National Coast Defense Board, composed of distinguished army and navy officers, under the presidency of W. H. Taft, then Secretary of War, was convened. This board, known as the Taft Board, sub-mitted its report early in 1906. The Taft Board known as the Taft Board, sub-mitted its report early in 1906. The Taft Board known as the Taft Board, sub-mitted its report early in 1906. The Taft Board, known as the Taft Board, sub-mitted its report early in 1906. The Taft Board, ko in the united States (7 more than under the plans of the Endicott Bo

Coast Guard Service, U. S., plied to the service created by an act of plied to the service created by an act of Congress in 1915, merging the Revenue Cutter and Life-saving Services of the United States. In general the duties of the Revenue Cutter Service, which de-volved upon the Coast Guard, were: As-istance of vessels in distress; co-opera-tion with the navy when directed by the President; destruction of derelicts and other menaces to navigation; protection of the customs revenue; enforcement of the navigation and other laws governing merchant vessels and motor boats; inter-national patrol of the ice fields in the North Atlantic; regulation and policing of regattas and marine parades; enforce-

ment of laws relating to anchorage ment of laws relating to anchorage of vessels, neutrality, quarantine, and immi-gration laws; suppression of mutines on board merchant vessels; protection of game, and the seal and other fisheries in Alaska; suppression of illegal traffic in Alaska; medical aid to seamen of the deep-sea-fishing fleets. \_\_\_\_\_

#### Coast and Geodetic Survey,

a scientific department of the government of the United States, for the purpose of making geodetic and hydrographic sur-veys to determine the coast-line; of mak-ing charts of harbors and tide waters, and of the bottom of the ocean along the coast; of indicating positions for the erec-tion of lighthouses; and the making of various meteorological and other observa-tions. It extends its observations to all parts of the globe, as serviceable to navi-gation. gation.

**Coast Mountains**, Coast RANGE, a range or series of ranges extending along the west of California, Oregon, Washington and Brit-ish Columbia, at no great distance from the Pacific coast, and rising to the height of 11,000 feet.

the vacuum coast, and rising to the integret of 11,000 feet. Coastwise Trade, or COASTING time commerce between ports of the same country, usually limited by law to ships of domestic ownership. The coastwise trade of Great Britain is not so limited, but that of Canada is limited to British-built vessels, and that of the United States to American vessels (vessels built within the United States, forfeited for breach of laws, or captured in war). The coastwise trade of the United States, al-ways of great importance because of the enormous coast-line, was stimulated by the opening of the Panama Canal in 1915. Coathridge (köt'brij), a town in

Coatbridge (köt'brij), a town in Scotland, Lanarkshire, 912 miles east of Glasgow. The district programmes east of Grasgow. The instruct abounds in coal and ironstone, and the place is a thriving town, supported chiefly by the ironworks, engineering establish-ments, etc., in the neighborhood. Pop. (1911) 43.287.

Coatesville (köts'vil), a borough of Chester Co., Pennsylva-nia, 38 miles w. of Philadelphia. It has rolling mills, steel plants, silk and woolen mills, etc. Pop. (1920) 14,515. Coati, or COATI-MONDI (kö'a-ti men'-di), a name of South American plantigrade carnivorous mammals, of the genus Nasua, belonging to the Ursida or bears, but recalling rather the raccoon or civets, and having a long proboscis or

snout. They feed on worms, insects, and the smaller quadrupeds.
Coat of Arms. See Arms and Heraldry.
Coat of Mail, a piece of armor in consisting of a network of iron or steel rings, or of small lamine or plates, usually of tempered iron, laid over each other like the scales of a fish, and fastured to a strong linen or leather jacket.
Cobalt (kö'balt; G. kobalt, kobolt, the demon of the mines, so called by miners because cobalt was troublesome to miners, and at first its value was not known), a metal with the symbol Co, specific gravity S.5, of a gravish-white color, very brittle, of a fine close grain, compact, but easily reducible to powder. It crystallizes in parallel bundles of needles. It is never found in a pure state, but usually as an oxide, or combined with arsenic or its acid, with sulphur, iron, etc. Its ores are arranged under the following species, viz, arsenical cobalt, of a white color, passing to steel gray; its texture is granular, and when heated it exhales the odor of garlic; gray cobalt, a compound of cobalt, arsenic, iron and sulphur, of a white color, with a tinge of red; its structure; oxide of cobalt, brown or brownish black, generally friable and eartherware. Alloyed with molybdenum, chromium and tungsten it is used for enting tools. See Stellite.
Cobalt, a town on Cobalt Lake, On-They world. The mines are the chief source of the world's supply of cobalt, which occurs abundantly in the silver district in they. It is the richest silver district in they color, the former soluble in water. The great use of North Bay. It is the richest silver district in molybdenum, chromium and tungsten it is used for enting tools. See Stellite.
Cobalt, a town on Cobalt area of and 90 mites northeast of Guatemaha. It is the rether and savaparilla. Pop, about 31,000.
Cobett (kol-bet). Wit LIAM, an Eng-Mites and sconger and cane producing region, and a trace in hides, skins, rubber of a rich coffee and cane producing region, and a trace in hides.

snout. They feed on worms, insects, and but after nine months he enlists the smaller quadrupeds. the 54th Foot, and shortly after Coat of Arms. See Arms and Her-aldry. regular habits and attention to enlisted in went His with the regiment to Nova Scotia. His regular habits and attention to his duties soon brought him promotion, and he was sergeant-major when the regiment four years after returned to England (1791). During his service in the army Cobbett had employed all his spare time in improving his education. He now obtained his discharge, married, and pro-ceeded to America to commence as a political writer. Under the signature of 'Peter Porcupine' he wrote papers and pamphlets of a strongly anti-republican tendency. In June, 1800, he sailed for England, and on his arrival started first the Porcupine, a daily paper, which had small success, then the Weckly Political ericulation. The Register had started as a Tory paper in support of Pitt, but gradually changed its politics till it be-came known as the most daring and uncompromising of the government's op-ponents. Three times heavily fined for libel, Cobbett continued his attacks on the government, in consequence of which be deemed it prudent to retreat to the etc. Its ores are arranged under the fol-uncompromising of the government's op-white color, passing to steel gray; its ibel, Cobbett continued his attacks on texture is granular, and when heated it exhales the odor of garlic; gray cobalt, a compound of cobalt, arsenic, iron and supplur, of a white color, with a tinge articles regularly, howers, for the Rep-of red; its structure is foliated, and its ist, arsenic, iron and unite States (1817), transmitting his orystals have a cube for their primitive form; sulphide of cobalt, compact and into Parliament for Coventry. About massive in its structure; oride of cobalt, the same period he commenced a series of prown or brownish black, generally fri-appers entitled Rural Ridea, afterwards able and earthy; sulphate and arsenate of cobalt, both of a red color, the former slass and enamels upon metals, porcelain, for cutting tools. See Stellite.
Cobalt, a town on Cobalt Lake, On-the world. The mines are the chief source for the world. The mines we the chief source trates, etc. Pop. 5630.
Cobbett (kohbet), Wittian, and politician, was the son of a rather and public mills, server trates, etc. Pop. 5630.
Cobbett (kohbet), Wittian, an Eng-miles northeast of Gamemaha. It is the renter of a rich coffee and came product was indifferently successful in the house. Sermons, etc. He wrote in a pure and matter did not go beyond his strong practical sense.
Cobbett (kohbet), Wittian, an Eng-miles northeast of Gamemaha. It is the rand astraparial. Pop. about 31,000, miles northeast of Gamemaha. It is the rand astraparial. Pop. about 31,000, was the son of a farmer and publician, was the son of a farmer and publician, the ranham in Surrey, and born there on March 9, 1762. In 1783 he scont source at the Edinburgh University, grad-ant or straparial. Pop. about 31,000, was the son of a farmer and publician, was the son of a farmer and publician, the worle son of a farmer and publician, was the son of a farmer and publician, the was to Lon

### Cobden

Middlesex Hospital. He was lecturer on geology at the British Museum from 1808 to 1873. A chair of helminthology was created for him at the Royal Veterinary College, where he had been professor of botany. He is best remembered for his researches in helminthology—that is, the study of parasitic worms in man and ani-mals. His publications include: Entozoa, Tapeworms, Husman Parasites, etc. Cobden (kob'den), RICHARD, an Eng-lish politician, the 'apostle of free trade,' born in Sussex in 1804; aied at London in 1865. After receiving a very meager education he was taken as an apprentice into a warchouse in London belonging to his uncle, and in this situa-tion he rapidly made up for the detects of his education hy his own diligence. In 1830, being left by the failure of his some relatives he started a cotton manu-factory in Manchester, which in a few wears was very successful. His first some relatives he started a cotton manu-factory in Manchester, which in a few years was very successful. His first political writing was a pamphlet on Eng-land, Ireland and America, which was followed by another on Russia. In both of these he gave clear utterance to the political views to which he continued through his life rigidly to adhere, advocat-ing non-intervention in the disputes of other nations, and maintaining it to be the only proper object of the foreign policy of England to increase and strengthen her connections with foreign the only proper object of the foreign policy of England to increase and strengthen her connections with foreign countries in the way of trade and peace-ful intercourse. Having joined the Anti-Corn-Law League, formed in 1838, it was chiefly the extraordinary activity of Cob-den, together with Bright and other zealous fellow-workers, which won victory for the movement. In 1841 Cobden entered Parliament as member for Stock-port, and after several years of unwearied efforts at last induced Sir Robert Peel, then prime minister, to bring in a bill for the repeal of the corn laws, a measure which became law in 1846. Next year he was chosen member for the W. Riding of York, a constituency which he repre-sented for ten years. His business, once highly prosperous, had suffered while he devoted himself to the agitation, and as a compensation for the loss he had thus sustained a national subscription was a compensation for the loss he had thus Pop. (1911) 5073. sustained a national subscription was Cobra di Capello (kö'bra di kap'el-made, and a sum of about \$550,000 pre-sented to him. Cobden continued his of the hood'), the Portuguese name of Inbors as an advocate of parliamentary the hooded or spectacled snake Naja reform, economy, and retrenchment, and tripudians, which is found in Southern a policy of non-intervention, in all of Asin, a closely allied species (Naja which he found a firm and ready ally in haje), also called cobra, or asp, being Bright, both being strong opponents of found in Egypt. It is called spectacled the Crimean war. In 1859 he was chosen snake from a singular marking on the member for Rochdale, and was offered, back of the neck, while its other name

Cobra di Capello

for the second time, a place in the government, but again preferred to keep his independent position. He refused also a baronetcy and several other digni-tion. His last great work work whether

government, but again preferred to keep his independent position. He refused also a baronetcy and several other dignities. His last great work was the commercial treaty which he was the means of bringing about between Britain and France in 1860. During his later years he lived a great deal in retirement. **Cobden Club**, an association formed death of Mr. Cobden, mainly by the influence of Mr. Bright and Mr. T. B. Potter, for the purpose of encouraging the growth and diffusion of those economical and political principles with which Mr. Cobden's name is associated. The Cobden Club has distributed a vast number of books and pamphlets. **Cobija** (kö-bë'hå), or Puerto La Mar, a seaport formerly of Bolivia, now in the territory of Antofagasta, Chile. Its population has fallen off from about 4000 to less than 500. **Coblenz** (kö-ber, from its situation at the confluence of the Rhine, in confluence of the Rhine, in the angle between it and the Moselle, oprosite the fortress of Ehrenbreitstein, which, prior to the European war, 1011-18, was one of the strongest places in Germany and capable of accommodating 100,000 men. American troops began the oscupation of Coblenz and Ehrenbreitstein December 10, 1918, in accordance with the terms of armistice. The new part of the town is sull built with broad strongs and fine. Cohlenz and Ehrenbreitstein December 10, 1918, in accordance with the terms of armistice. The new part of the town is well built with broad streets and fine squares. The palace of the Elector of Treves was later used as a Prussian royal residence. The industries of Cohlenz aro wines, ships, hats, pianos. Pop. 56,487. Cobnut, a large variety of the hazel-nut.

Cobourd', nut. Cobourg (kö'burg), a port of Canada, ' Ontario, 69 miles E. by N. of Toronto. It is well built, has sundry manufactures, a good harbor, and an increasing trade. Pop. (1911) 5073. Cobra di Capello (kö'bra di kap'el-lō: that is, 'snake of the bood'), the Portuguese name of

is given from the remarkable manner in influence which it spreads out its skin on the sides called coor of the neck and head when disturbed or having efficiency and head when disturbed or having efficience of the stand the stand of the longest term is such to stances a few hours is the longest term is much to mose taken. But indeed recovery rarely takes administer place, though injection of potash into nor opera the veins is said to be a remedy. In finger, etc. India thousands of natives lose their lives the drug yearly through cobra bites. Its food consists of small reptiles, birds, frogs, fishes completely (being an excellent swimmer), etc. Its term. Str great enemy is the ichneumon. It is one of cocaine of the snakes that the snake-charmers perform tricks with.
Coburg (Ko'bo'rg), a town and state of Germany, now united with Bavaria, formerly capital of the duchy of Saxe-Coburg-Gotha. It lies on the Itz, 106 miles E. by N. of Frankfort-on-Main, and contains the pulace of the dukes of Saxe-Coburg-Gotha and an ancient castle where Luther found concealment. It has various manufactures and extensive brew ries. In the reconstruction of Germany, in 1918, the inhabitants of Coburg voted in favor of union with the republic of Bavaria; consummated March, 1920. It sends 3 members to the Bavarian National Assembly. Pop. 75,000.
Coburg Peninsula, a peninsula on species a of Australia in the Northern Territor.

influence on a crystallizable alkaloid called cocaine (CasHaNOs), which besides having effects similar to the leaf, pos-sesses valuable anæsthetic properties. Applied to the skin cocaine has little ef-fect, but applied to mucous membranes in the form of a solution of the hydro-chloride, it produces complete local ane-thesia, lasting for about ten minutes. It is much used in operations on the eyes, nose, tonsils and throat, etc. It is also administered hypodermically for such mi-nor operations as the amputation of a finger, etc. The stimulating effect which the drug produces on the brain tends to nor operations as the amputation of a finger, etc. The stimulating effect which the drug produces on the brain tends to the formation of the cocaine habit, which completely undermines the nervous sys-tem. Stringent laws governing the sale of cocaine have been enacted.

Cocaine (kö-kän', kö'ka-in). See Coos.

Coccinella (kok-si-nel'a), the bird genus of ladyinsects. See Ladybird.

**Coccolite** (kok'ö-līt). See Augite.

Bavaria, formerly capital of the duchy of Saxe-Coburg-Gotha. It lies on the Itz, 106 miles E. by N. of Frankfort-on-Min, and contains the palace of the dukes of Saxe-Coburg-Gotha and an ancient case. Coccolite (kok'o-lit). See Asyste.
Saxe-Coburg-Gotha and an ancient case of the dukes of Saxe-Coburg-Gotha and an ancient case. It is not some that the transfort on Min, and contains the palace of the dukes of Saxe-Coburg-Gotha and an ancient case. It is not some that the republe of the sense of the dukes of Saxe-Coburg-Gotha and an ancient case. It is not some that the republe of the republe of the republe of the republe of the sense of the dukes of Saxe-Coburg Peninsula, the previous of the dukes of South an encient case.
Coburg Peninsula, the north coses of the orth coses of the orthoweb (kob web), the web or net case the in prev.
Cocca ((köka), Erythrorylon Coca, a order Erythroxyles. The leaf contains a some of south American plant, national south the dukes a person to south a merican mixed by the inhabitants of countries on the landity of the adde a plant of the south an eit of the coordises are elongated in their form, have large wings, and are destitute of any obvious and are destitut of an inch in diameter, somewhat similar to those of opium. A simulating angests fatigue even when receiving less food than usual; and it prevents the difficulty of respiration to south an eit of the plants on which they live. At a certain period of their life the females of the places of the plants on the desire for it increases so much with indukence that a contirmed in climbing high mountains. The dian in climbing high mountains. The dian excess it brings on various the male: after which there which they increases considerably in many reclaimed. Coca-leaves depend for their the republe of the reliated by the male: after which there which there which there which they increases considerably in creases

### Coccyx

**COCCYX** suming that of a gall, and, after deposit-ing the eggs, drying up and forming a habitation for the young. Some of these insects are troublesome in gardens, plan-tations, and hot-houses, while others are of great value. For example, kernes, cochineal, lac-lake, lac-dye, and gum-lac are either the perfect insects dried or the secretions which they form. Kermes consist of the dried females of Coccus illois, found in great abundance upon a species of oak (Quercus cocciféra), a native of the Mediterranean basin, and gathered before the eggs are hatched. It was known as a dyestuff in the earliest times, but has partly fallen into disuse since the introduction of cochineal. Uochineal cousists of the bodies of the females of the Coccus cacis, a native of Mexico, which feeds on various species of cactus, particularly on one called nopal (Opuntia cochinilifera). See Cochineal, Lac, and China Waz. Spherical bac-teria are also called cocci. **COCCYX** (kok'siks), in anatomy, an assemblage of small bones constituting the lower extremity of the backbone, consisting of the last four vertebree, in a rudimentary form, co-ossified. It is triangular in shape, and convexo-concave. It is the homologue in man of the tail in animals. **Cochabamba** (koch-a-bam'ba), a

\$100,000 annually to the Indian govern-ment. Area, 1381 sq. miles; pop. (1911) 918,110, of whom about 230,000 were Christians, partly belonging to the Jacobite and Nestorian churches estab-lished here in early times. The capital is Ernakolam. Formerly Cochin was the capital, a town on the Travancore estuary, within half a mile of the British town of Cochin (which see). Cochin-China (k & ch in-chi'na), a country forming part of the peninsula of Southeastern Asia, and formerly regarded as comprising

of the peninsula of Southeastern Asia, and formerly regarded as comprising the whole of Anam (which see) and Lower or French Cochin-China. The latter belonged to Anam till, in 1863, a portion of it was finally ceded to France after a war occasioned by the persecution of French missionaries; other portions were gradually acquired, the territory obtained covering 23.082 sq. miles, with a population of 2,968,529. It is now organized in departments, prefectures, subprefectures and cantons. The north-ern and eastern parts are hilly, but Lac, and China Waz. Spherical bac-teria are also called cocci. COCCYX (kok'siks), in anatomy, an subprefectures and cantons. The north-constituting the lower extremity of the the rest of the ferritory consists al-backbone, consisting of the last four most entirely of well-watered, low, allu-vertebre, in a rudimentary form, co-vial land. In the low and wet grounds ossified. It is triangular in shape, and much rice is grown. In the more elevated convexu-concave. It is the bomologue in districts are grown tobacco, sugar-cane, man of the tail in animals. Cochabamba (k o ch-a-bamba), a other products are tea, gums, coceanut banba, situated in a fertile valley #18, spices. The climate is hot and naize, indigo and betcl. Among the other products are tea, gums, coceanut out at the area and considerable manu-which their temples, pagodas, and tombs actures. Pop. 31,014.—The province are built, being ornamented with elabo-has an area of 25,288 sq, miles; pop-rate carving. They live in villages ad-furesque place with many quaint of british randings. Its barbor, although connects Salgon and Mytho. The prin-sometimes inaccessible during the s. w. cipal export is rice, mainly to China; monsson, is the best on this coast. Its cotton and silk are also exported. The trade, however, has for some years been stude to the rivers, which the boal places in India visited by Europeans. In trade is chiefly in the hands of the 1502 Yaso da (iam established a face. Chiese. The French number only tory, and soon after Albuquerue built a several hundreds. The majority of the places to hala bartosy of Malabar costs. **Cochin**, a small native state of India, cutoms they much resemble the Chinas; monsoylabic language, their religious places in India visited by Europeans. In trade is chiefly in the hands of the system of Cofnicus and in their social cutoms they much resemble the Chinas; monsoylabic language, their religious places in India visited serior of Malabar costs. **Cochin**, a small native

### Cochin-China

### Cochineal

Cochineal (koch'in-ël), a dyestuff consisting of the dried bodies of the females of a species of in-sect, the Coacus cacit (see Coacus), a na-tive of the warmer parts of America, par-ticularly Mexico, and found living on a species of cactus called the cochineal-fig. The insects are softly brushed off, and killed by being placed in ovens or dried in the sun, having then the ap-pearance of small berries or seeds. A pound of cochineal contains about 70,000 of them. The finest cochineal is pre-pared in Mexico, where it was first dis-covered, and Guatemala; but Peru, Bra-zil, Algiers, the East and West Indies, and the Canary Islands have also entered into this industry with more or less suc-cess. Cochineal produces crimson and scarlet colors, and is used in making carmine and lake. Cochlea (kok'lê-a), an important part from its shape, which resembles that of a snail-shell.

**Cochlearia** (kok-lē-ā'ri-a), a genus of cruciferous plants, including the horseradish and common curvy-grass.

Scurvy-grass. Cochrane, JOHN, born in Palatine, in 1898. He studied law, became inter-ested in politics; and was surveyor of the port of New York, 1853-57. During the Civil War he fought as colonel of the lst United States Chasseurs. In 1864 he was nominated vice-president, and in 1865 became attorney-general of New York. York.

Cochrane, LOBD. See Dundonald.

birds are easily tamed, and when domesti-cated become very familiar. The sulphar-crested cockatoo (*Pliotolophus galerita*) of Australia and Tasmania is a favorite cage-bird. So are the white-crested cocka-too (*P. albus*) and Leadbeater's cockatoo (*P. Leadbeateri*), the pink cockatoo whose crest is barred with crimson, yellow and white. The Kaka of New Zealand (*Nestor meridiondlis*) belongs to this family. family.

family. Cockatrice (kok'a-tris), a fabulous monster anciently be-lieved to be hatched from a cock's egg. It is often simply another name for the basilisk. See Basilisk. Cockburn (ko'burn), SIE GEORCE (1772-1853), a British naval officer, born in London. He entered the navy while still a boy, serving on the East India, home, and Mediterranean sta-tions. He became a rear-admiral in 1912 and took a prominent part in the war with the United States, assisting in the marauding expeditions that laid waste many towns and villages along the shores of the Chesapeake Bay. He continued his devastating work as far as the Georgia coast and in August, 1814, took part with General Robert Ross (1770-1814) in the sack of Washington following the defeat. of the American troops at Bladensburg, Maryland. They burned the capitol and many other public and private buildings. With Ross he made an unsuccessful at-tempt to take Baltimore. Ross was killed, but Cockburn escaped injury. In 1815 he took Napoleon to St. Helena, remaining as governor of the island till 1816, later becoming one of the Lords of the Ad-miraity. Cockburn (ko'burn), HENEY DUNDAS.

Cochrane, LORD. See Dundonald.
Cock. See Fowl.
Cockade (ko-kād'), a plume of cock's Cockburn (ko'burn), HENET DUNDAS, Cockade (ko-kād'), a plume of cock's Cockburn (LORD, a distinguished Scottish judge, was the son of Architald Scottish judge, was the son of Architald Cockburn, one of the barons of the Court Cockade in France, and during the Advocates in 1800. He attached himself French revolution the tricolored cockade to the Liberal party, rose to eminence in -red, white and blue-became the naronal distinction. National cockades are now to be found over all Europe.
Cockatoo (kok-a-tö'), the name of a argo example of the blending of Psittacide, or regarded as forming a distinct family Plictolophide or Cacatuides. They have a large, hard bill; a crest, teresting is his life of his friend Lord capable of being raised and lowered at the will of the bird, commonly white but sometimes yellow, red, or blue; a tail sometimes yellow, red, or blue; a tail for the most part, a white plumage, state, as well as for the injury it does

### Cocker

to vegetation after it has attained its perfect condition. The common cock-chafer (*Mototostic sulptris*) is hatched from an egg which the parent deposits in a hole about 6 inches deep, which she digs for the purpose. At the end of about three months the insect emerges as a small grub or magrot, and feeds on the roots of vegetables in the vicinity with great voracity. When full grown it is over an inch in length; it makes its way underground with ease, and commits a perfect coleopterous insect—a beetle over an inch long, of a black color, with a whitish down. It usually emerges over an inch long, of a black color, with a whitish down. It usually emerges from the ground about the beginning of May, from which circumstance the Eng-lish name *May* bug or beetle has been given it. In its perfect state it is very destructive to the leaves of various trees. **Cocker** (kok'er), a dog of the spaniel dog, used for raising woodcocks and snipes from their haunts in woods and marshes. marshes.

**Cocker,** EDWARD, an English en-graver and teacher of writing and arithmetic in the seventeenth cen-tury, born about 1631. Ilis work, *Cocker's Arithmetic*, upon which many succeeding treatises were framed, was unblished in 1677.

Cocker's Arithmetic, upon which many succeeding treatises were framed, was published in 1677. Cockermouth (k o k'er-mouth), a England, at the mouth of the Cocker, 24 miles s. w. of Carlisle, now giving name to a parl. div. of the county. It has an old ruined castle, supposed to have been built soon after the conquest. Thread and tweeds are manufactured; and there are coal-mines in the neighbor-Thread and tweeds are manufactured; and there are coal-mines in the neighbor-hood. Cockermouth was the birthplace of the poet Wordsworth. Pop. 1911, 5203. **Cockfighting**, an amusement prac-tised in various countries, first perhaps among the Greeks and Romans. At Athens there were an-nual cockfights, and among the Romans quails and partridges were also used for this purpose. It was long a favorite quaits and participes were also used for this purpose. It was long a favorite sport with the British, and the training, dieting, and breeding of cocks for fighting was the subject of many treatises. It is a favorite sport in the island of Cuba, in the Philippine Islands, and some other localities.

Cock-Lane Ghost, an impudent many Londoners were deceived in 1762. many Londoners were deceived in 102, consisting in certain knockings heard in the house of a Mr. Parsons, in Cock Common Cockroach, male and female. Lane. Smithfield. Dr. Johnson was the Orthopterons or straight-winged or-among those who believed in the super- der, characterized by an oval, elongated,

natural character of the manifestations. but it was found out that the knockings were produced by a girl employed by Parsons.

Parsons. Cockle (kok'l), a name for the bivalve molluscs of the genus Cardium, especially Cardium edule, com-mon on the sandy shores of the ocean, much used as food. The general char-acteristics are: shells nearly equilateral and equivalvular; hinge with two small teeth, one on each side near the beak, and two larger remote lateral teeth, one on each side; prominent ribs running from the hinge to the edge of the valve. Capital San Commender

Cockle. See Corn-cockic.

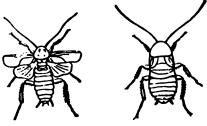
Cockle Stove, a stove in which the irre-chamber is sur-rounded by air-currents, which, after be-ing heated sufficiently, are admitted into the apartments to be warmed. Cockney a London citizen, as to the origin of which there has been much dis-pute. The word is often, but not always, employed slightly as implying a peculiar limitation of taste or judgment. The epithet is as old at least as the time of Henry II. Cock of the Dising (Castroneway)

Cock of the Plains (('e ntrocorcus urophasidnus), a large North American species of grouse, inhabiting desolate plains in the western States.

Cock of the Rock (Rupicole su-rantia), a South American bird of a rich orange color with a beautiful crest, belonging to the manakin family.

Cock of the Woods. See cailzie. Caper-

Cockpit (kok'pit). in a man-of-war. the place where the wounded were dressed in battle or at other times, and where medicines were kept. Cockroach (kok'röch; Bistis). a ge-nus of insects belonging to



#### Cockroach

### Cockscomb

depressed body, which is smooth on its superior surface. They have parchment-like elytra, and in the female the wings are imperfectly developed. They are noc-turnal in their habits, exceedingly agile, and devour provisions of all kinds. Cock-roaches, like other orthopterous insects, do not undergo a complete metamorpho-sis: the larvæ and nymphs resemble the perfect insects, except that they have merely rudiments of wings. The eggs are carried below the abdomen of the female for seven or eight days till she finally attaches them to some solid body by means of a gummy fluid. The species are numerous. The Blatta orientalis, or common kitchen cockroach (in Eng-land commonly called black beetle), was originally brought from Asia to Europe, and thence to America, where it is now common. The Blatta Americana, or American cockroach, grows to be 2 or 3 inches long, including the antennes. common. The Blatta Americana, or American cockroach, grows to be 2 or 3 inches long, including the antennæ. Throughout the southern portion of North America and in the West India Islands this species invades houses and is very troublesome.

Cockscomb (koks'köm). a name **COCKSCOMD** (Roks com), at name given to flowering plants of various genera. By gardeners it is properly confined to *Celosia cristāta*; but it is popularly applied to *Pedicularis* or lousewort. Rhinanthus crista-galli or yellow rattle, as also to Erythrina cristaoalli.

Cock's-foot, ('OCK's-FOOT GRASS, a perennial pasture-grass (Dactifis glomerata) of a coarse, harsh, wiry texture, but capable of growing on barren, sandy places, and yielding a valuable food for sheep very early in the spring. It is a native of Europe generally, also of Asia and America. The name has been given to it because of the resemblance of its three-branched panicle to the foot of a fowl. Cockspur Thorn, the Cratagut North American shrub which has long been cultivated in Britain as a shrubbery ornament. There are several varieties, which are admired for their snowy blos-soms in May.

soms in May.

(Rok'swân; colloquially cok'sn), the officer who manages and steers a boat and has the command of the boat's crew. **Cocles.** See House

Cocoanut Oil shape, from 3 or 4 to 6 or 8 inches in length, covered with a fibrous hus, and fined internally with a white, firm, and fined internally with a white, firm, and from 60 to 100 feet high. The trunk is a crown of feather-like leaves. The nur hang from the summit of the tree in custers of a dozen or more together. The custers of a dozen or more together. The further is encloses an extremely hurface. This encloses an extremely hurface. This encloses an extremely hurface which immediately surrounds the nut. The latter has a thick and hard shell, with three black scars at one end, for a substance, of considerable thick near which immediately surrounds the nut. The latter has a thick and hard shell, with three black scars at one end, for shelt as the rest of the shell. The struct are pushes its way. This scar may be pierced with a pin; the others and be down of Africa, the East and West Indies, and South America, and is over and watery liquid, of a whith path is a native of Africa, the East of shelter and protection are all aforded by the cocoanut tree. The kernel are the function of the shell. The strend protection are all aforded to the shell on pressure an oil which is a field on pressure an oil which is a field on pressure an oil which is a corra. The fironus coal of the nut is matting : the coarse yarn obtained from it is called coir, which is also used for origined and made into a cup or other matting is the coarse yarn obtained from inting the tree a white, sweetish liquid of the spirit called erack. A kind of the shift called erack. A kind of the family Longicornes, the large beet of the shift called erack. A kind for the shift called erack. A kind for the family Longicornes, the large beet of the family Longicornes, the large b

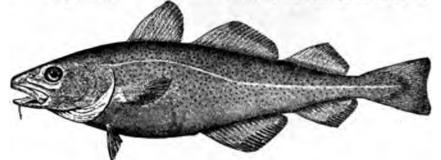
command of the boat's crew. Cocles. See Horatins. Cocoa ( $k\delta^{2}k\bar{\delta}$ ), a name given to the scape and pomatum. This fat is got a beverage. See Cacao. Cocoanut or (properly) Coconut. Ceylon export large quantities of this a woody fruit of an oval



### Cocca-plum

Cocoa-plum, the fruit of Chryso-balanus Icaco family Rosacese, which is eaten in the West Indies. It is about the size of a plum, with a sweet and pleasant thoug!. some-what austere pulp. Cocoon (ko-kön'), the name given to the web or ball spun by cater-pillars before passing into the chrysalis state. The valuable product thus ob-tained from the silkworm is well known. Cocos (kok'os) ISLANDS. See Keel-ing Islands.

crustaceous and molluscous animals abun-dant in such situations, and thus attract fleets of fishermen. Few members of the animal creation are more universally serviceable to man than the codfish. Both in its fresh state and when salted and dried it is a substantial and wholesome article of diet; the tongue is considered a delicacy, and the swimming-bladders or sounds, besides being highly nutritious, supply, if rightly prepared, an isinglass equal to the best Russian. The oil ex-tracted by heat and pressure from the crustaceous and molluscous animals abun-



Codish (Gadue morrhus).

Increase of the styles of the

Codish (Gadus morrhus). Cocum (kö'kum) BUTTER, COCUM-OIL, oil obtained from the seeds of Garoinic value of the cod. The cod is enormoually purpures, a tree of the same genus with prolific, the ovaries of each female con-mangosteen, used in India to adulterate taining more than 9,000,000 of eggs; ghee or fluid butter. It is sometimes mixed with bear's-grease in pomatums. Cocytus (kö'kl'tus; from Greek kö-banks of Newfoundland begins about of ancient Epirus. Also, among the ancient Epirus. Also, among the soft-finned fishes, of the same family as the haddock, whiting, ling, setc., distinguished by the following char-acters: —A smooth, oblong, or fusiform body, covered with small, soft scales; wentrals attached beneath the throat; file large, seven-rayed, and opening spotted with yellow and brown; the bower jaw; generally two or three dorsa is the common or bask cod (G. mor

### Codeine

Codeine are the chief codes which have affected the laws of Europe: The Theodosian Code (Codex Theodosianus), a compila-tion executed in 429 by a commission on behalf of Theodosius the Younger, and promulgated as law throughout the east-ern and western empires. The Justinian Code (Codex Justinianus), a code com-piled in 528, in the reign of the Em-peror Justinian, incorporating all the codes, rescripts, edicts previously in use (see Civil Laws). The Code Napoléon, or Code Civil. undertaken under the consulship of Napoleon by the most eminent jurists of France, and published in 1804. The Code Napoléon (under which name other four codes of com-mercial law, criminal law, penal law, and law of procedure, drawn up at the same time, are often included) was a code in the strictest sense, that is, not merely a collection of laws, but a complete and exclusive statement of the law, virtually amounting to a recasting of the laws of the country. In this country one of the most complete codes which has been enacted is that of Louisiana, made after its cession to the United States and su-perseded by a new one in 1824. In the way of revision of existing law an ad-mirable example is that of the Revised Statutes of the State of New York, which started the inauguration of a widespread reform in jurisprudence, extending to England, India, Australia, and most of the American States. The principal re-forms were the abolition of the distinc-tion between legal and equitable practice, and the simplification of procedure in general. Congress has a committee en-gaged in a codification of United States area. Codeine (kö-dě'in; Gr. ködeia, a pop-py-head), a crystallizable alkaloid obtained from onjum, in which

Codeine (ko-de'in; Gr. kodeia, a pop-

the whole of the New Testament, the Epistle of Barnabas, and a part of the Shepherd of Hermas, discovered in the monastery of St. Catherine, on Mount Sinai, by Tischendorf, in 1859, and now at St. Petersburg. It is written on parchment in four columns, in early uncial characters, and bears every mark of being of great antiquity, perhaps even older than the Vatican MS. It is as-signed by Tischendorf to the fourth cen-tury. The Old Testament is defective. but the New Testament is complete, not a word being wanting, which is the more remarkable inasmuch as it is the only manuscript of the New Testament which is complete, being from this and its early life of the highest value. It has been published in facsimile.—Codea Vaticosus, an ancient Greek MS. of the Old and New Testaments, so called from being contained in the Vatican Library at Rome. It is written on thin vellum, in small uncial characters. The manuscript is assigned to the fourth century, and un-til the discovery of the Sinaitic was re-garded as the best manuscript of the Old and New Testaments. The greater part of Genesis in the Old Testament, and the whole of the pastoral epistles and the whole of the pastoral epistles and the whole of the pastoral epistles and the whole of the new Testament are wanting. A facsimile of it was pub-lished in 1868. **Codex Medicus**, a publication, of a ter, containing a list of therapeutic agents, methods of manufacture, etc. There are several now published, some relating to a specialty in medical charac-ter, Containing a will, to be con-

and art. macopœia.

and art. The name of the French phar-macopocia. Codicil (kod'i-sil), in law, a supple-ment to a will, to be con-sidered as a part of it, either for the purpose of explaining or altering, or of adding to or subtracting from the test-ator's former disposition. A codicil may not only be written on the same paper or affixed to or folded up with the will, but may be written on a different paper and deposited in a different place. In general the law relating to codicils is the same as that relating to wills, and the same proofs of genuineness must be fur-nished by signature, and attestation by witnesses. A man may make as many codicils as he pleases, and, if not con-tradictory, all are equally valid. Codilla (ko-dil'a), the coarsest part of hemp. which is sorted out by itself; also, the coarsest part of flax. Codlin (kod'lin), CODLING. a name for **Laws. Codeine** (kō-dē'in; Gr. kōdeia, a pop-alkaloid obtained from opium, in which it exists to the amount of 6 or 8 oz. per 100 lbs. It is used to produce sleep and to soothe irritable coughs; and is some-times the chief remedy in diabetes; dose, 4 grain and upwards to 1 grain. It is a poison in excessive doses. **Codetta** (ko-det'a), in music, a short section with another. **Codex** (kô'deks), an ancient written MS., as one of the Scriptures or of some classical writer. A collection of laws was also called coder, as Codex **Code:** (ko'di'a). The sorted out coder. Codex Justinianus (see Code: Alexandrinus. See Alex-andrian Version.—Codex Sinaiticus, a very ancient and valuable manuscript of Testament (including the Apocrypha). **Codeline** (ko'lin), CODLING, a name for kore discussion of the Order Alexandrinus, Codex Sinaiticus, a very ancient and valuable manuscript of Testament (including the Apocrypha).



### Codling-moth

Codling-moth, a small moth the

Codling-moth, a small moth the on the codling apple. Cod Liver Oil, an oil extracted from kinds of cod—the Gadus morrhus (com-mon cod) being specified in the phar-macopaia—and allied species. The fin-est and palest oil is got from fresh and carefully-cleaned liver, the oil being ex-tracted either in the cold or by a gentle heat. The darker kinds are got at a higher temperature, and often from the livers in a putrefying state. Only the pale oils are used in medicine; the dark oils are too rank and acrid, and they are only used in dressing leather. Cod-liver oil is a somewhat complex sub-stance, but the main ingredients appear to be olein and margarin. Acetic, butyric and phosphoric acids, iodine, bromine and phosphorus are also present, and to these the oil may owe some of its odor. This oil is now a recognized agent in the treat-ment of rheumatism, gout, scrofula and expecially of consumption, being taken internally and containing easily-assimi-lated nutritive matter. Codocrao (ko-do'nyô), a town in

especially of consumption, being taken internally and containing easily-assimi-lated nutritive matter. Codogno (ko-dô'nyô), a town in North Italy, province of Milan, in a fertile district between the l'o and Adda, with a large trade in Par-mesan cheese. Pop. 10,033. Codrus (kô'drus), according to Greek legrend the last king of Athens. Having learned that the enemies of his country would be victorious, according to the declaration of an oracle, if they did not kill the Athenian king, he voluntarily entered their camp, provoked a quarrel and was slain. The grateful Athenians abolished the royal dignity, substituting that of archon, esteeming no one worthy to be the successor of Codrus. Cody, WILLIAM FREDERICK, scout and Bill, born in Scott county, Iowa, in 1845; became a pony express rider and a gov-ernment scout and guide (1861-65). During the construction of the Kansas l'acific Railroad he contracted to furnish the laborers with meat and killed in eight-cen months (1867-68) over 4000 buffaloes, Subsequently he engaged in a great num-ber of Indian fights, and in 1855; produced

that of archon, esteeming no one worthy to be the successor of Codrus. Cody, William FreeDerick, scout and Bill, born in Scott county. Iowa, in 1845: Bill, born in Scott county. Iowa, and in eight, and bolongs to the Rubiacee. Bill, and as the coefficient of ar. 3. Coehorn (Kabron). MENNO, BAIRON, BAIRON, MENNO, BAIRON, And the Scott and the flowers are white and sweet-scented. The fruit is of an oval shape, about the size of a cherry, and of 10-3

10-3

gineer, born 1641; died 1704. Having entered the Dutch military service he distinguished himself by his invention of small mortars, called after him cochorns, but more by his eminence as a master of the art of fortification, whence he has been called the Dutch Vauban. He forti-fied almost all the strong places in Holland. Holland.

See Aligarh. Coel.

Cœlenterata (se-le n-tèr-â'ta; Gr. koilos, hollow, enteron, an intestine), a subkingdom of animals. an intestine), a subkingdom of animals, including those whose alimentary can il communicates freely with the general cavity of the body ('the somatic cavity'). The body is essentially composed of two layers or membranes, an outer layer or 'ectoderm' and an inner layer or 'endo-derm.' No circulatory organs exist, and in most there are no traces of a nervous system. Peculiar stinging organs or 'thread-cells' are usually, if not always, present, and in most cases there is a radiate or starlike arrangement of the organs, which is especially perceptible in the tentacles, which are in most in-stances placed round the mouth. Dis-tinct reproductive organs exist in all, but multiplication also takes place by fission and budding. The Coelenterata are divided into two great sections, the Actinozoa and the Hydrozoa, and include the medusas, corals, sea-anemones, etc. They are nearly all marine animals. **Coelestin** (se-les'tin). See Celestine.

Cœlestin (se-les'tin). See Celestine. Cocle-Syria (<sup>sc'</sup>le sir'i-a, that is, 'Hollow Syria'), the large valley lying between the Lebanon and Anti-Lebanon mountain ranges in Syria. Near its center are the ruins of Daubhet Syria. Baalbek.

Coffee

Coffee



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## Coffee-bug

Cohesion

cipal supply of the United States is de-rived from Brasil, which furnishes 75 the remains of an old castle. It is per cent. of the whole import. It is famous for the brandy which bears its known in commerce as 'Rio.' Coffee name, and which is exported to all parts acts as a nervous stimulant, a property of the world. Pop. 18,389. which it owes mainly to the alkaloid caffeine (which see). It thus promotes cheerfulness and removes languor, and also aids digestion; but in some consti-tutions it induces sleeplessness head-ache, and nervous tremblings, particu-larly after over-indulgence. Coffee\_hpro-Lecanism coffex, an in-taria state of the sta

usually enriched with moldings, and having a rose, pomegranate, etc., in the center. Coffer-dam, a temporary wooden en-in order to obtain a firm and dry foun-dation for bridges, piers, etc. Coffeyville, a city in Montgomery degris River. 19 miles s. of Independence. It has oil refineries, brick and tile plants, sinc oxide plant, paper and flour mills, sash and door factories, etc. Both elec-tric light and water plants are owned and operated by the city. Pop. 13,452. Coffin (kof'in), the chest or box in which a dead body is enclosed for burial. Coffins were used by the ancients mostly to receive the bodies of persons of distinction. Among the Romans it was Ir erly the almost uni-versal custom to consume the bodies with fire, and deposit the ashes in urns. In Egypt coffins seem to have been used in ancient times universally. They were of stone, earthenware, glass, wood, etc. A sort of ancient coffin is known as a *sarcophagus*. Coffins among Christians were introduced with the custom of burying. (See Burial.) Modern coffins are usually made of wood. Coffin, Bost on, Massachusetts, in 1759; died in 1839; entered the British navy when 14 years old under Sir John Montague, becoming commander in 1782. During the Revolution he remained loyal to the mother country. He founded the famous Coffin School, Nantucket, Mass., 'to be a perpetual tree of knowledge in this sterile spot.' In January. 1899, the foundation was valued at \$50,000, and it was decided to allow an emergency fund to accumulate. Cogmac (kon-ykk), a town in France, dep. Charrente, and near the

cheerfulness and removes languor, and rates. also aids digestion; but in some consti-tutions it induces alceplessness head-sche, and nervous tremblings, particu-larly after over-indugence. Coffee-bug, Lecanism coffex, an in-coffee-bug, sect of the Coccus family, in law, judicial or formal notice to sunk panel or compartment in a ceiling of an ornamental character, and usually enriched with moldings, and ally borne by every well-born Roman. having a rose, pomegranate, etc., in the center. Coffer-dam, a temporary wooden en-in order to obtain a firm and dry foun-torest. the such as the pomegranate of the such as the pomegranet the individual (Marcus), and the gons the individual (Marcus), an belonged.

**Cognovit** (kog-nö'vit), in law, is a written confession given by the defendant that the action of the plaintiff is just, or that he has no avail-able defense.

Coheir, Contracts (kö-ar', kö-är'es), coheir, a joint heir or heiress, one who succeeds to an inheritance that is to be divided among two or more.

Coheleth. See Ecclesiastes.

Concerctal. See Ecclesiastes.
Consisting the second property of the secon Cohesion (kô-hê'shun),

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ELECTRIC COINING PRESS, U. S. MINT, PHILADELPHIA Woman feeding planchets, or coin blanks, to bruss tubes from the bottom of which they are carried to the steel due which form the coina.

. . .

a minute. These presses do their work wanted without smoke and fiame as in in a perfect manner. After being smelting. The retort or by-product oven stamped the coins are taken to the coin- has been recently greatly developed so as er's room. The light and heavy coins to eliminate waste, the yield of coke aver-are kept separate in coining, and when aging 75 per cent. the weight of coal used, delivered to the treasurer they are mixed while in the 'beehive' oven the average is in such proportions as to give him full only 65 per cent. Sometimes two kinds of weight in every delivery. By law, the coal are mixed to get a coking combination. deviation from the standard weight, in pennyweights in one thousand double 1900 was 13,357,295 short tous; this had eagles. The coinage of the United risen in 1905 to 20,573,736 short tous, (000,000,000 pieces, valued at over \$4,000,000,000 pieces, valued at over \$4,000,000,000 pieces, valued at over the husk of the nut, from which are manufactured matting, bagging. Scotia's output was 643,478 tons. In propes and cables. Coir cordage, from lasting well in salt-water, as also from its lightness, strength, and elasticity, is preferable in many respects to ropes of hemp. Mats and matting are now largely made of coir, which is also used in coarse brushes, for stuffing purposes, etc. Coire (kwär), or CHUE (bör), the Helca Brett's Career. The Worst House in coarse brushes, for stuffing purposes, etc. Coire (kwär), or CHUE (bör), the Helca Brett's Career. The Worst House in coarse brushes, for stuffing purposes, etc. Coire (kwär), or CHUE (bör), the Helca Brett's Career. The Worst House in coarse brushes, for stuffing purposes, etc. Coire (kwär), or the rivers Plessur and the Grisons, on the rivers Plessur and the firstons, on the rivers Plessur and to the show an eminent Eng-

largely made of coir, which is also used the European war nuce was invanced nome in coarse brushes, for stuffing purposes, with the rank of capital. His novels include: The Pedestal, The Golden Key.
Coire (kwär), or CHUR (hör), the Heiden Brett's Carcer. The Worst Houses in chude: The Pedestal, The Golden Key.
Coire (kwär), or CHUR (hör), the Heiden Brett's Carcer. The Worst Houses in the ancient style of architecture. Not far from type of architecture. Not far from type of coal which has been heated for small vessels. Pop. 11,718.
Coix, Tears.
Coke (kök), the carbonaceous residue in an oven or retort, or in any way of Bucen, attorney-general. As such he simplest method of producing coke of Casex and Sir Walter Raleigh, which is based on the preparation of wood case and Sir Walter Raleigh, which is based on the preparation of wood case and Sir Walter Raleigh, which is based on the preparation of wood case and Sir Walter Raleigh, which is based on the preparation of two colucted with great rancour and charceal, the coal being arranged in asperity. In 1613 he became Chiefjus then ready. Methods of heating the coal. After the volatile portions are got rid Tower, and soon after expelled, then the volatile portions are got rid Tower, and soon after expelled to the privy-council. In 1621 he was chosen recogned and fuid products are driven of the probend general the proper temperature for de the volatile portions are got rid Tower, and soon after expelled for the singer of the relating the coal the ready. Methods of heating the coal of the gase of the ready and the coal be are driven of the probend and the common are driven of the propong and framing the famous reado commonity used. Gas-coke is relating the coal is an orage color, submetallic to the propong and framing the famous reado commonity used. Gas-coke is relating the cond in the regres of the Carbon, submetallic trans the ast in subord to 1615: Institute of the Larso of England. In four parts contains about 90 per

('Coke upon Littleton'); A Treatise of Bail and Mainprise, Complete Copy-holder.

Col (French, neck), an elevated moun-tain pass between two higher sum-mits. The name is used principally in those parts of the Alps where French is commonly spoken.

Cola. See Kola.

Colander (kol'an-der), a vessel with little holes for straining liquors. Colberg (kol'berg), or KOLBEEG, a Prussian fortified seaport in Pomerania, on the river Persante, 1 mile from the sea, with a good shipping trade and well-frequented baths. Formerly a regular fortress, it has often been held against strong armies. Pop. 20,200. Colbert (kol-bār), JEAN BAPTISTE, a celebrated French minister of finances, born at Rheims in 1619. After serving in various subordinate de-

**Colbert** (kol-bar), JEAN BAPTISTE, a celebrated French minister of finances, born at Rheims in 1619. After serving in various subordinate de-partments Colbert was made intendant, and at length comptroller-general of the finances. His task was a difficult one. He found disorder and corruption every-where. The state was the prey of the farmers-general, and at the same time maintained only by their aid. The peo-ple were obliged to pay 90,000,000 livres of taxes, of which the king received scarcely 35,000,000, the revenues were anticipated for two years, and the treas-ury empty. Colbert at once commanded a system of stringent reforms, abolish-ing useless offices, retracting burden-some privileges, diminishing salaries, and distributing and collecting the taxes by improved methods till he had reduced them almost to one-half. To his talents, activity, and enlarged views the develop-ment and rapid progress of industry and commerce in France were largely due. He constructed the Canal of Languedoc; declared Marseilles and Dunkirk free ports; granted premiums on goods ex-ported and imported; regulated the tolls; established insurance offices; made uni-form laws for the regulation of com-merce, labored to render the pursuit of it well esteemed, and invited the nobility to engage in it. The French colonies in Canada. Martinique, etc., showed new signs of life; new colonies were estab-lished in Cayenne and Madagascar, and to support these Colbert created a con-siderable naval force. Under the pro-tection and in the house of the minister (1603) the Academy of Inscriptions was founded. Three years afterwards he founded the Academy of Sciences, and in 1671 the Academy of Architecture. He enlarged the Royal Library and the

Garden of Plants and built an observa-

Garden of Plants and built an observa-tory in which he employed Huyghens and Cassini. He began the measurement of the meridian in France, and sent men of science to Cayenne. After having con-ferred the greatest benefits on his coun-try he died in 1883, out of favor with the king and the people. **Colburn** (kol'burn), ZERAH, 'the cal-culating boy,' born in Ver-mont, in 1804; died in 1840. Before his sixth year he began to manifest wonder-ful powers of arithmetical computation, and in public exhibitions astounded learned mathematicians by the rapidity and accuracy of his processes, but the faculty left him when he grew up. After acting as a teacher and itinerant preacher, he was latterly professor of languages at Norwich University, Ver-mont. Others besides him have possessed this remarkable faculty, which indi-cates powers in the brain little under-stood. **Colabaster** (kol'chester), a borough stood.

this remarkable faculty, which indi-cates powers in the brain little under-stood. Colchester (kol'ches-ter), a borough and river-port of Eng-land, County Essex, 51 miles N. E. by E. London, mostly situate on the summit and sides of an eminence rising from the river Cohe; well built and amply supplied with water. It has a good coasting trade and employs a great num-ber of small craft in the oyster-fishery. It is a place of high antiquity, there being no place in the kingdom where so great a quantity and variety of Roman remains have been found as here. It is supposed to be the Camalodunum of the Romans, and was called Colne Ceaster, from its situation on the Colne, by the Anglo-Saxons. Pop. (1911) 43.463. Colchester, a town (township) of Colchicine (kol'chi-sin), an alkaloid obtained from colchicum, used for the alleviation or cure of gout and rheumatism. It acts as an emetic, diuretic, and cholagogue cathartic, and in large doses as a narcotico-acrid poison. Colchicum (kol'chi-kum), a genus of plants, order Melantha-ncew, allied to the lilies. The Colchicum, user for the alleviation or cure of gout autumdle, or meadow saffron, is a bub-ous-rooted. stemless, perennial plant, which grows in various parts of Europe. From a small corm or bulb buried about 6 inches deep, and covered with a brittle brown skin, there rises in the early autumn a tuft of flowers having much the appearance of crocuses, flesh-colored, white, or even variegated. They soon wither, and the plant disappears till the succeeding spring, when some broad



### Colchis

Colcountar previous red or ide of iton, which forms a durable color, but its most used in polishing giase and metals.
 Cold, the absence of sensible heat, estate a construction of the product a maximum discurse of iron, furniture, cement in the temperature in which man and off the body, but this is many and the temperature in which man and digested. A high degree of cold, howere, produces bodily depression, and is a frequent source of disease, or even of death. For the aiment called a cold, see Carras.
 Cold-blooded Animals, a term of the target from the aiment called a cold, see Carras.
 Cold Cream, unclosed from the surrounding medium.
 Cold Cream, is a white, semisold, in 1857. He entered the employation of source and water. The first three in polication to south e triatated. For the add of greater carras.
 Cold Cream, unclosed of the state of the sodium borate the work of many years and include dim organize and water. The first three in the sodium borate the work of many years and include the sodium borate the work of many years. These represent of the sodium borate the two of last conditions of the contrary. He are in a source of the contrary the sodium borate and water are made into rosewater, and the solution borate the solution of the same more in the solution in a long the solution of the same of the solution contrary the binder the solution of the same are the solution of the same of the solution of the same of the solution or the same of the solution of the same of the solution or the same of the solution the solution of the same of the solution or the same of the solution or the same of the solution the solution the same of the solution the sa

leaves are thrown up by each corm along with a triangular oblong seed-vessel another. In transporting perishable ma-transporting perishable in gout and terial by ship or car the same process cattle are injured by eating it, but it is used. Meats thus kept need to be yields a medicine valuable in gout and rheumatism. See Oclohies. Colohis (kol'kis), the ancient name of the cancasus, famous in Greek mythol-ogy as the destination of the Argonauts, and the native country of Medea. Colcohar (kol'ko-thar), an impure from, which forms a durable color, but is most used in polishing glass and metals.

110 miles w. s. w. of Detroit. It has man-ufactures of iron, furniture, cement, leather, brass, and a milk condensory.

### Colenso

### Coleoptera



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### Coleridge-Taylor

Coloridge-Taylor Ingand, and after ten years of desultory interary work, took refuge from the world in the house of his friend Mr. Gillman at Highgats, London. Here he passed the rest of his days, holding weekly conver-entiones in which he poured himself forth in eloquent monologues. His views on religious and political subjects had become mainly orthodox and conserva-tive, and a great work on the Logos, which should reconcile reason and faith, was one of the dreams of his later years. But Coloridge had long been incapable of concentrating his energies on anything, and of the many years he spent in the leisure and quietness of Highgate nothing remains but the Table Taik and the frag-mentary notes and criticism gathered together, and edited by his nephew. He died July 25, 1834. The dreamy and transcendental character of Coleridge's poetry eminently exhibits the man. In his best moments he has a fine sublimity of thought and expression not surpassed by Milton; but he is often turgid and ver-bose. As a critic, especially of Shake-spere, Coleridge's work is of the highest rank, combining a comprehensive grasp of large critical principles and a singu-larly subtle insight into details. Cole-ridge's poetical works include The Am-cient Mariner, Christabel (incomplete), Remorse, a tragedy, Kuble Khen, a: translation of Schiller's Wallenstein, etc.; hs prose works, Biographia Literaria, The Friend, The Statesman's Manuel, Aids to Reflection, On the Constitution of Church and State, etc. Coleridge-Taylor, SANUEL, a musi-Anglo-African descent, born in London in

Aids to Roflection, On the Constitution of Church and State, etc. Coleridge-Taylor, SAMUEL, a musi-anglo-African descent, born in London in 1875; died in 1912. He studied at the Royal College of Music, and soon began his brief but brilliant career. His works include Scenes from the Song of Hiava-tha, The Blind Girl of Castel Cuillé, Meg Blane, The Atonement, and Kubla Khan. He also composed incidental mu-sic for several of Stephen Phillips' dramas. He was the first negro to achieve fame as a creative musician. Colesced (köl'sëd), a name for a schieve fame as a creative musician. Colesced (köl'sëd), a name for a sice Napus) and its seed, which is made into oil-cake for feeding cattle. Colet (kol'et), JoHN, an eminent di-vine, dean of St. l'aul's, and founder of St. Paul's School, London, horn in 1406; died in 1519. Colfax (kol'faks), SCHUTLER states-man, born at New York in 1823; died in 1885. About 1845 he estab-lished at South Bend, Indiana, a weekly paper, the St. Joseph Valley Register, an

organ of the Whig party, which he edited for many years. He was elected to Con-gress in 1854 and was at three different times chosen Speaker of the House. In 1868 he received the Republican nomi-nation for the vice-presidency and was elected with President Grant. He served one term

nation for the vice-presidency and was elected with President Grant. He served one term.
 Colic (hol'ik; from colon, a portion of the large intestine), a painful disorder of the bowels, usually of a spasmodic character, unaccompanied by diarrhoze, and presenting itself in various forms. When the pain is accompanied with a voniting of bile or with obstinate costiveness it is called a bilious colic; if with windy distension, it takes the name of fasulent or windy colic; if with heat and inflammation, it takes the name of fasulent or windy colic; if with heat and inflammation, it takes the name of inflammatory colic, or extertise. There are many other varieties of this complaint, some of which are peculiar to certain occupations or districts, as the psinters' colic (see Least Poisoning), the Devonshire colic.
 Coligny (kol-in-yé), GASPARD DE, a France, born in 1517, distinguished himself under Francis I and Henry II, who made him in 1552 Admiral of France. After the death of Henry II Coligny took the Protestant side in the religious strifes of the time, and became the head of the Huguenot party. He was generally unfortunate in the battles he fought, but speedily repaired his defeats by prudence and good management. When peace was made Coligny was received with apparent favor at court. But this was only a blind; and on the night of St. Bartholomew's (Aug. 24, 1572) Coligny was basely slaughtered. and his corpse given up to the outrages of the mob. Colima (kol-isë'um). See Colos.
 Colliseum (kol-isë'um). See Colos.
 Colliseum (kol-isë'um). See Colos.
 Colliseum (kol-isë'um). See Colos.
 Collation as of books, etc.—In bookbinding, the examining of the gathered

square miles. Collation (kol-lâ'shun), a comparison, as of books, etc.—In book-binding, the examining of the gathered sheets of a book before binding. Collect (kol'lekt), a term applied to certain short prayers in the Roman Catholic and Anglican churches.

Collect

# College

# College

# Colleges and Universities in the United States and Canada

United States						
Name	Location	No. of St'd'ta	Name	Location	No.	
Adelphi	Brooklyn, N. Y	574	Central Normal	Danville, Ind		
Agnes Scott	Decatur, Ga	456	Central Wesleyan	Warrentown, Mo		
Akron Municipal Univ	Akron, Ohio	2,600	Centre	Danville, Ky		
Alabama, Univ. of	University P. O., Ala	530	Charleston, College of	Charleston, S. C.	1.1	
labama, Woman's of	Montgomery, Ala.	375	Chicago, Univ. of	Chicago, Ill	11;	
lbany	Albany, Ore	169	Chicora. Cincinnati Univ	Columbia, S. C	1	
Ibion	Albion, Mich.	530	Cincinnati Univ	Cincinnati, Ohio	3,	
Ibright	Myerstown, Pa. Alfred, N. Y. Meadville, Pa.	202	Citadel, The	Charleston, S. C Clarendon, Tex Worcester, Mass	1 3	
dfred Univ	Alfred, N. Y	477	Clarendon	Clarendon, Tex	1	
llegheny	Meadville, Pa	536	Clark	Worcester, Mass		
Ima	Alma, Mich.	224	Clark Univ	Atlanta, Ga Potsdam, N. Y	1.1	
merican Univ	Washington, D. C	140	Clarkson School of Tech.	Potsdam, N. Y.	1.11	
mherst	Amherst, Mass.	503	Соелинини	Cedar Rapids, Iowa	1.3	
ntioch	Yellow Springs, Ohio.	300	Coker	Hartsville, S. C.		
rizona, Univ. of	Tueson, Ariz	1,340	Colby Colgate Univ	Waterville, Me Hamilton, N. Y	1.1	
rkansas	Batesville, Ark	127	Colgate Univ	Hamilton, N. Y.	1.	
rkansas, Univ. of	Fayetteville, Ark	1,099	Colorado	Colorado Springs, Col.	1.1	
rmour Inst. of Tech	Chicago, Ill.	2,200	Colorado School of Mines	Golden, Col.	1.0	
shland	Ashland, Ohio	175	Colorado State Teachers.	Greeley, Col	4.	
tlantic Christian	Wilson, N. C	181	Colorado, Univ. of	Boulder, Col.	2	
ugsburg Sem	Minneapolis, Minn	147	Colorado Woman's	Danvor Col		
ugustana	Rock Island, Ill	1,099	Columbia Univ	New York, N. Y.	25,	
ustin	Sherman, Tex	277	Connecticut (Fem.)	New London, Conn	1 - 3	
aker Univ	Baldwin City, Kan	526	Cooper	Storling Kan	1.1	
aldwin-Wallace	Berea, Ohio New York, N. Y Pee Dee, N. C	1,189	Cooper Union	New York, N. Y. Mt. Vernon, Iowa Ithaca, N. Y.	2.	
arnard	New York, N. Y	748	Cornell	Mt. Vernon, Iowa	1.0	
arrett Col. & Ind. Inst.	Pee Dee, N. C	178	Cornell Univ	Ithaca, N. Y	5.	
ates	Lewiston, Me	527	Cotner	Bethany, Neb College Park, Ga		
laylor (Fem.)	Belton, Tex.	1,467	Cox. Creighton Univ	College Park, Ga	1.5	
aylor Univ	Waco and Dallas, Tex.	2,388	Creighton Univ	Omaha, Neb Canton, Mo	1.	
leaver	Beaver, Pa. Beloit, Wis. Columbia, S. C.	271	Culver-Stockton	Canton, Mo		
eloit	Beloit, Wis	638	Cumberland Univ	Lebanon, Tenn Mitchell, S. D	1.	
lenedict	Columbia, S. C	550	Dakota Wesleyan Univ.	Mitchell, S. D		
erea	Berea, Ky. Lindsborg, Kan. Bethany, W. Va. Russellville, Ky.	2,400	Dallas, Univ. of Daniel Baker			
lethany	Lindsborg, Kan	871	Daniel Baker	Brownwood, Tex. Hanover, N. H. Davidson, N. C. Elkins, W. Va.	4.0	
lethany	Bethany, W. Va	429	Dartmouth	Hanover, N. H.	1	
Bethel	Russellville, Ky	161	Davidson	Davidson, N. C	1.7	
Sethel	Newton, Kan	200	Davis & Elkins	Elkins, W. Va	1.	
Bethel	Birmingham, Ala	290	Defiance	Defiance, Ohio	1	
lackburn	Carlinville, Ill	141	Delaware	Newark, Del	1.1	
shue Ridge	New Windsor, Md	147	Dennison Univ	Granville, Ohio		
luffton	Bluffton, Ohio	336	Denver Univ	Denver, Col	1 1.	
loston	Boston, Mass	734	De Paul Univ	Chicago, Ill	1 1	
loston Univ	Boston, Mass	8,833	De Pauw Univ	Greencastle, Ind	1	
lowdoin	Brunswick, Me	403	Des Moines	Des Moines, Iowa	1 1	
Iradley-Poly. Inst.	Peoria, Ill.	2,014	Detroit Univ	Detroit, Mich	1 1	
Irenau	Gamesville, Ga.	580	Dickinson	Carlisle, Pa	1.1	
Iridgewater	Bridgewater, Va.	234	Doane	Crete, Neb	4 1	
Irigham Young	Logan, Utah	908	Drake Univ	Des Moines, Iowa	2	
rown University	Providence, R. I.	1,372	Drexel Inst.	Philadelphia, Pa	2	
lryn Mawr	Bryn Mawr, Pa	479	Drury	Springfield, Mo	18	
ucknell L'niv	Lewisburg, Pa	938	Dubuque	Dubuque, Iowa	4	
Juena Vista	Storm Lake, Iowa Buffalo, N. Y. Greenville, Tex.	120	Duquesne Univ	Pittsburgh, Pa	2	
luffalo Univ	Buffalo, N. Y.	1,455	Earlbam	Richmond, Ind.	4	
Jurleson	Greenville, Tex	239	Elizabeth	Salem, Va		
utler	Indianapolis, Ind.	680	Ellsworth	Salem, Va. Iowa Falls, Iowa Elmira, N. Y.	4	
alifornia, Univ. of	Berkeley, Calif		Elmira	Elmira, N. Y.	4	
ampion	Prairie du Chien, Wis	106	Elon	Elon College, N. C.	4	
anisius.	Buffalo, N. Y	1,011	Emory Univ	Atlanta, Ga	1	
apital Univ	Columbus, Ohio	390	Emory and Henry	Emory, Va. Emporia, Kau		
arleton	Northfield, Minn	742	Emporia	Emporia, Kan		
arnegie Inst. Tech.	Pittsburgh, Pa	4,220	Erskine	Due West, S. C		
Carroll	Waukesha, Wis	357	Eureka	Eureka, Ill.		
arthage	Carthage, Ill	260	Evansville	Evansville, Ind		
as School Ap. Science	Cleveland, Ohio	800	Ewing	Ewing, Ill		
Tatholic Univ. of Amer.	Washington, D. C		Fairmount	Wichita, Kan		
Cedarville	Cedarville, Ohio	204	Fargo.	Fargo, N. D		
Central	Pella, Iowa	224	Findbay	Findlay, Ohio		
Central	Fayette, Mo		Fisk Univ	Nashville, Tenn	1	
STREET						



# College

# College

Name	Location	No. of St'd'ta	Name	Location	No. St
Florida (Fem.)	Tallabassee, Fla	771	Junista	Huntingdon, Pa.	
Florida, Univ. of	Gainesville, Fla.	843	Kalamasoo	Huntingdon, Pa Kalamazoo, Mich	
Fordham Univ	Fordham, N. Y	2,900	Kansas City Univ	Kansas City, Kan. Lawrence, Kan	
Pranklin		576	Kansas, Univ. of	Lawrence, Kan	3,
Franklin and Marshall.	Lancaster, Pa. Wichita, Kan. Greenville, S. C. Washington, D. C. Beaver Falls, Pa.	300	Kansas Wesleyan	Salina, Kan.	
riends Univ Parman, Univ Sallaudet.	Wichits, Kan.	250	Kentucky, Univ. of Kentucky, Wesleyan	Lexington, Ky	2,
urman, Univ	Greenville, S. C.	375	Kentucky, Wesleyan	Winchester, Ky Gambier, Ohio,	1,
islaudet	Washington, D. C	116	Kenyon	Gambier, Ohio,	1
leneva leo. Peabody for Teach	Beaver Falls, Pa.	636	Knoz.	Galesburg, III. Knoxville, Tenn. Easton, Pa. La Grange, Ga.	
ico. Peabody for Teach	I NESDVILLE, APPLI	1,828	Knoxville	Knorville, Tenn	4
		5,102	Lafayette	Easton, Pa	
eorgetown	Georgetown, Ky	358	La Grange	La Grange, Ga	1
eorgetown Univ.	Washington, D. C., Atlanta, Ga. Gettysburg, Pa. Spokane, Wash. Gochen, Ind. Baltimore, Md. Lamoni, Lowa	3,311	Lake Forest	Lake Forest, Ill. Greenwood, S. C.	
corgia School of Tech.	Allanta, Ca.	2,634	Lander	Jackson, Tenn	1
	Catherine De	522	Lane. La Salle.	Palladalahia Di	
ettysburg onnaga Univ	Cookana Wash	700	Lawrence.	Philadelphia, Pa	
oshen	Coshen Ind	300	Lebanon Valley	Appleton, Wis.	1,0
onohor	Baltimore Md	855	Lehigh Univ.	Bathlaham Pa	1.
mooland	Lamoni Iona	325	Leland Stanford Jr. Univ.	Bethlehem, Pa. Stanford Univ., Calif.	2,1
oucher raceland rand Island	Grand Island, Neb	87	Lenoir.	Hickory N.C.	- 4
reensboro.	Latnoni, Iowa Grand Island, Neb. Greensboro, N. C. Greenville, Ill.	363	Lewis Institute	Hickory, N. C. Chicago, III. Lincoln, III.	4,0
reenville	Greenville, Ill.	283	Lincoln	Lincoln III.	1
renada	Grenada, Mins.	250	Lincoln Memorial Univ	Harrogate, Tenn	1
rinnell	Grenada, Miss.	830	Lincoln Memorial Univ. Lincoln Univ.	Harrogate, Tenn	1
rove City	Grove City, Pa. Guilford College, N. C.	350	Little Rock	Little Rock, Ark	i
uilford	Guilford College, N. C.	240	Livingston	Salisbury, N. C.	1,0
ustavus Adolphus,	St. Peter, Minn. Clinton, N. Y St. Paul, Minn.	365	Lombard	Galesburg, Ill.	1
amilton	Clinton, N. Y.	314	Louisburg.	Louisburg, N. C	ī
amilton amline Univ.	St. Paul, Minn.	500	Louisiana State Univ	Pineville, La.	1
ampden-Sidney	Hampden-Sidney, Va	143	Louisiana State Univ	Baton Rouge, La.	1.
anover	Hanover Ind	313	Louisville Univ.	Louisville, Ky	Ĩ
artshorn Memorial	Bichmond, Va. Honolulu, T. H. Cambridge, Mass. Barboursville, W. Va.	256	Lowell Textile School	Lowell, Mass. Los Angeles, Calif.	1,
awaii, Univ. of	Honolulu, T. H.	432	Loyola	Los Angeles, Calif.	- 3
arvard Univ	Cambridge, Mass.	7,454	Lovola	Baltimore, Md.	Ĩ
arvey, Morris	Barboursville, W. Va.	241	Loyola Univ	Baltimore, Md New Orleans, La	1,1
astings	finstings, Neb.	454	Luther	Decorah, Iowa	1
averford	Hasterford Da	209	McKendron	Lebanon, Ill.	1
coding	Abingdon, Ill. Tiffin, Ohio Arkadelphia, Ark. Conway, Ark. Hillsdale, Mich.	152	McMinnville	McMinnville, Ore McPherson, Kan	- 1
cidelberg I my	Tiffin, Ohio.	396	McPherson	McPherson, Kan	
enderson-Brown	Arkadelphia, Ark	350	Macalester	St. Paul, Minn	- 8
endriv	Conway, Ark.	380	Maine, Univ. of	St. Paul, Minn Orono, Me New York, N. Y Mansfield, La	5 1,4 3
ills lale	Hillsdale, Mich.	75	Manhattan	New Yark, N. Y.	- 3
ITA01	Hiram, Ohio Geneva, N. Y. Hollins, Va.	306	Mansfield (Fem.)	Mansfield, La	2
obart	Geneva, N. Y	240	Marietta Marquette Univ	Marinella, Ohin	. 4
ollins oly Cross	Hollins, Va	300	Marquette Univ	MUSERIERS WIE	3,5
oly Cross.	Worcester, Mass	735	Martin	Pulaski, Tenn.	2
boo	Worcester, Mass. Frederick, Md. Holland, Mich.	265	Maryland	Anoap, & Balto., Md.	Z
ope oward oward Univ	Holland, Mich.	487	Maryland Maryland, for Women Maryland, Univ. of	Pulaski, Tenn. Annap. & Balto., Md. Lutherville, Md.	Ĩ
oward	Birmingham, Ala	502	Maryland, Univ. of	College Park, Md	1,7
oward Univ	Washington, D. C.	1,810	plaryvine.	Maryville, Tenn	
unter	New LOFE, N. L.	1,308	Mass. Inst. of Tech	Cambridge, Mass	3,4
aron	New York, N. Y. New York, N. Y. Huron, S. D. Caldwell, Idaho Moseow, Idaho Lebeschill, 10	475	Mercer Univ	Macon, Ga. Raleigh, N. C.	4
aho. aho, Univ. of	Morrow Idehe	210	Meredith	Meridian Min	4
ano, Chiv. OI.	Jacksonville III	1,289	Meridian Miami Univ.	Meridian, Miss.	1.0
inois inois State Normal		523 2,800	Michigan, Univ. of	Ann Arbor, Mich	1,0 10,6
inois Mate Normal.	Normal, Ill.	9,493	Middlabary		۵, U, G
inois, Univ. of inois Wesleyan Univ.	l'rbana, III. Bloomington, Ill. Jackronville, Ill. Indianapolis, Ind.	9,493	Middlebury	Middlebury, Vt. Fremont, Neb. Johnson City, Tenn. Desatur, III. Oakland, Calif. Jackson, Min. Milton, Win. Baltimore Md.	÷
nois Woman's Col.	Independing the	432	Midland	Johnson City Town	ī
Sana Central U.Sv.	Indianapolis Ind	227	Milligan Milliken, James, Univ	Decator III	1.4
Sana State Normal C.	Mongie Ind	239	Mills.	Oakland Calif	4
fiana <sup>q</sup> tate Normal Se. fiana Univ	Bloomington Ind	3,914	Millaps	Jackson Miss	- 3
dustrial Arts	Muncie, Ind. Bloomington, Ind. Denton, Tex.	1,314	Milton	Milton Win	i
ternational Y. M. C. A.	Springfield, Mass	317	Milton Milton Univ	Baltimore, Md	2
in fate	Amon Town	6,100	Milwaukee-Down #		4
a State Teachers	Ames Iowa Cedar Falls, Iowa	5,250	Minnesota, Univ. of	Milwaukee, Wis. Minneapolis, Minn.	8,2
wa State Leachers	Iowa City, Iowa	5,341	Minimurra	Clinton, Miss.	0,5
wa Weslevan Univ.	Mt. Pleasant, Iowa	216	Mississippi Miss. Indust. Inst.	Columbur, Min	3
ving Col. & Music Con.	Mechanicsburg, Pa	127	Miss StateCol for Women	Columbus Miss	
meetown	Jamestown, N. D.	256	Musiminti Univ of	Columbus, Miss. Columbus, Miss. University P. O., Miss.	- 6
mestown flerion	Convent, La.	175	Missimippi, Univ. of Missouri, Univ. of Missouri Valley Missouri Wesleyan	Columbia, Mo.	5.3
well, Wm.	Liberty, Mo.	325	Museum Valler	Marshall, Mo	3
has Hopkins Univ	Baltimore, Md.	3,487	Minnouri Woslovan	Marshall, Mo Cameron, Mo	â
	Marion, Ala		Monmouth		

# College

# College

Name	Location	No. of St'd'ts	Name	Location	No. St'o
Montana State	Bozeman, Mont	981	Piedmont	Demorest, Ga	-
Montana State School of	<b>D N</b>		Pikeville	Pikeville, Ky	1.0
Mines	Butte, Mont	142	Pittsburgh, Univ. of	Pittsburgh, Pa	6.
Montana, Univ. of Montana Wesleyan Moravian C. & S. (Fem.)	Missoula, Mont	1,434	Polytechnic Inst	Pittsburgh, Pa. Brooklyn, N. Y. Claremont, Calif.	1.
dontana wesleyan	Helena, Mont Bethlehem, Pa	200 225	Pomona Porto Rico, Univ. of	Rio Piedras	2.1
forebouse	Atlanta, Ga.	585	Potomac Univ.	Westington D.O.	2.
lorgan	Baltimore, Md.	400	Pratt Inst.	Brooklyn N. V	14
forningside	Sioux City, Iowa	1.006	Presbyterian Col. of S. C.	Brooklyn, N. Y Clinton, S. C Princeton, N. J.	123
fount Holvoke	South Hadley, Mass.	787	Princeton Univ.	Princeton, N. J.	1.5
fount St. Charles. Mount St. Joseph's Mount St. Mary's	Helena, Mont. Baltimore, Md.	161	Providence	Providence, R. I. Tacoma, Wash	
fount St. Joseph's	Baltimore, Md.	246	Fuget Sound	Tacoma, Wash	1.3
fount St. Mary's	Emmitsburg, Md	225	Purdue Univ	Lafayette, Ind	3,1
Jount Union	Alliance, Ohio	415	Quinn Paul	Lafayette, Int. Waco, Tex. Cambridge, Mass. Ashland, Ya. Lynchburg, Va. Redlands, Calif. Portland, Gre. Troy, N. Y. Kingston, R. L. Houston, Tex. Bichmond Va.	1
Juhlenberg	Allentown, Pa. Sevierville, Tenn.	248	Radcune	Cambridge, Mass	1 3
furphy	Sevierville, Tenn.	475	Randolph-Macon	Ashland, Va.	
luskingum	New Concord, Ohio Lincoln, Neb	1,180	Randolph-Macon (Fem.)	Lynchburg, Va.	
Vebraska, Univ. of	University Place, Neb.	7.121 882	Redlands Univ	Portland Ora	
evada, Univ. of	Repo Nev	556	Rensselaer Poly. Inst	Tror N V	1.0
lowharro	Reno, Nev. Newberry, S. C.	170	Rhode Island State	Kingston R I	1 3
weberry	New Orleans, La.	550	Rice Inst.	Houston Tex.	
lew Hampshire State	Durham, N. H.	891	Richmond	Richmond, Va.	
M. State Sch. of Mines	New Orleans, La. Durbam, N. H. Socorro, N. M. Albuquerque, N. M.	125	Rio Grande	Die Counda Ohia	1.14
lew Mexico, Univ. of lew Orleans Univ	Albuquerque, N. M	425	Ripon.	Ripon, Wis	
lew Orleans Univ		600	Roanoke Rochester Univ	Ripon, Wis. Salem, Va. Rockford, Ill. Ellicott City, Md. Terre Haute, Ind. Winter Park, Fla.	1.3
lew Rochelle	New Rochelle, N. Y New York, N. Y.	340	Rochester Univ	Rochester, N. Y	1.
Y. Y., College of City of New York State College	New York, N. Y.	12,543	Rockford	Rockford, Ill.	1 3
lew York State College	Server N. V	284	ROCK HILL	Ellicott City, Md	
of Forestry w York State College for Teachers.	Syracuse, N. Y	284	Rose Poly. Inst	Vinter Bask Fla	
ew lork State College	Albany, N. Y.	598	Rollins Russell Sage	Winter Fark, Fia	
lew York Univ	New York, N. Y.	12,943	Rutgers	Troy, N. Y. New Brunswick, N. J.	
Jiamen Univ	Niagara Falls, N. Y.	450	St. Ambrose	Devenhort logra	1 3
liagara Univ. forth Carolina, Univ. of	Chapel Hill, N. C.	2,300	St. Anselm's	Manchester, N. H.	
orth Dakota Univ	Grand Forks, N. D.	1.200	St. Bernard.	St. Bernard, Ala	1
orthland	Ashland, Wis. Naperville, Ill.	179	St. Bonaventure s.	Manchester, N. H. St. Bernard, Ala. Allegany, N. Y. St. Paul, Minn.	1 3
orthwestern	Naperville, Ill	529	St. Catherine	St. Paul, Minn	1.1
orthwestern Univ	Watertown, Wis. Evanston, Ill.	252	St. Elizabeth	Convent, N. J.	
orthwestern Univ	Evanston, Ill.	7,752	St. Francis	Drooklyn, N. I.	
orwich Univ.	Northfield, Vt	250		Manhattan Boro, N. Y	
otre Dame Univ	Notre Dame, Ind	1,581	St. Ignatius	Cleveland, Ohio	
akland City	Oakland City, Ind Oberlin, Ohio	475	St. Ignatius	San Francisco, Calif. Annapolis, Md. Brooklyn, N. Y. Toledo, Ohio	
berlin	Oberlin, Oluo	1,607	St. John's	Annapous, Md.	1.3
Occidental	Los Angeles, Calif.	506	St. John's St. John's Univ	Brooklyn, N. I	1
ngden hio Northern Univ	Bowling Green, Ky Ada. Ohio	1,043		Vashington D C	
hio State Univ.	Columbus, Ohio	8,313	St. John's Univ	Washington, D. C Collegeville, Minn	14
hio, Univ. of	Athens, Ohio	1,219	St. Joseph's	Collegeville, Ind. Canton, N. Y. San Antonio, Tex.	
hio Wesleyan Univ	Delaware, Ohio	1,500	St. Joseph's	Collegeville Ind	1.3
klahoma Agri.	Stillwater, Okla.	1,900	St. Lawrence Univ	Canton, N. Y.	
kiahoma (Fem.)	Chickasha, Okla	400	St. Louis	San Antonio, Tex.	1.3
klahoma, Univ. of	Norman, Okla. Omaha, Neb.	4,500	St. Louis Univ.	St. LOUIS, MIO.	2.
maha Univ.	Omaha. Neb	600	St. Martin's	Lacey, wash	
regon, Univ. of	Eugene, Ore. Ottawa, Kan.	4,276	St. Mary's St. Mary's	Dayton, Ohio	1.1
Hawa Univ.	Ottawa, Kan.	452	St. Mary's	Notre Dame, Ind St. Mary's, Ky Oakland, Calif.	1.18
terbein	Westerville, Ohio	485	St. Mary's	St. Mary & Ky	
xford zarks, College of the	Oxford, Ohio	223 200	St. Mary's	Oakland, Calif.	1.55
Larks, College of the	Clarksville, Ark.		St. Mary's St. Mary's School	Van Buren, Me. Raleigh, N. C. St. Mary's, Kan. Winooski, Vt. Northfield, Minn.	
arifie	San Jose, Calif.	403	St. Mary's	St Mary's Kan	
acific acific Union	Newberg, Ore. Saint Helena, Calif.	400	St. Michael's	Winooski Vt	
acific l'uiv.	Forest Grove, Ore.	225	St. Olaf	Northfield, Minn.	1.13
ark	Parkville, Mo.	300	St. Peter's	Jersey City, N. J.	
Pions	Fairfield, Iowa	419	St. Stephen's	Jersey City, N. J. Annandale, N. Y.	1.1
asadena Univ	Pasadena, Calif.	600	St. Teresa	Winona, Minn.	1.1
syne, Howard	Brownwood, Tex.	750	St. Viator's St. Vincent C. & S St. Xavier	Bourbonnais, Ill	1 4
enn	Oncaloona, Iowa	618	St. Vincent C. & S	Beatty, Pa.	1
ennsylvania (Fem.) ennsylvania Military	Pittsburgh, Pa	205	St. Xavier	Cincinnati, Ohio	
ennsylvania Military	Chester, Pa. State College, Pa.	160	Salem	Salem, W. Va.	1.0
ennsvlvania State	State College, Pa.	3,000	Salem.	Beatty, Pa. Cincinnati, Ohio. Salem, W. Va. Winston-Salem, N. C.	1
enneylvania, Univ. of	Philadelphia, Pa	11,182	Canta Clara Univ	Santa Cuira, Calif	1.9
hilander Smith	Little Rock, Ark.	409 4,130	Santa Clara Univ. Scott, Agues. Seton Hall	Decatur, Ga.	
buppines, Univ. of	Manila. P. I. Enid, Okla.	1.203	Seton Hall	South Orange, N. J Raleigh, N. C.	
Lillips Univ	LING, UKBL	1,203	ONDA CHARLES	AMARCINES, AND WALLER AND	



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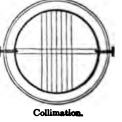
### College

# College

Name	Location	No. of St'd'ta	Name	Location	No. St'c
borter	North Little Rock, Ark.	618	Wake Forest	Wake Forest, N. C	
borter burtleff	Rome, Ga. Alton, Ill.	275 150	Wartburg Washburn	Clinton, Iowa Topeka, Kan	8
	Ahilone. Tex.	963	Washington.	Washington Coll., Tenn.	<u>،</u>
1010006	Abilene, Tez Boston, Mass. Indianola, Iowa Sioux Falls, S. D.	1,378	Washington	Chestertown, Md.	
	Indianola, Iowa	600	Washington State	Pullman, Wash Scattle, Wash	2.0
ouz Falle	. Sioux Falls, S. D	240	Washington, Univ. of	Seattle, Wash	7.0
	Northampton, Mass	1,910	Washington Univ. Washington & Jefferson	St. Louis, Mo.	3,8
aith, Philander	Little Rock, Ark	243	Washington & Lee Univ.	Washington, Pa Lexington, Va	
uth, Univ. of uth Carolina, Univ. of	Columbus, 8. C.	601	Wellesley	Wellesley Mass	1.6
uth Dakota - tate.	Brookimgs, S. D.	1045	Wells	Wellesley, Mass. Aurora, N. Y.	2
uth Dakota tate. uth Dakota, Univ. of	Brookings, S. D. Vermilion, S. D.	972	Wesleyan	Macon, Ga.	8
uthern	Cearwater, Fla.	225	Weeleyan Univ.	Macon, Ga. Middletown, Conn	8
athern Univ.	Baton Rouge, I.a	655	Wesley	Greenville, Tex.	1
uthern Calif., Univ. of	Los Angeles, Calif	4.861	Western (Fem.)	Oxford, Ohio	2
uthern Meth. Univ	Dallas, Tex   Winfield, Kan	1,328	Western Maryland Western Reserve Univ	Cleveland Ohio	2.0
uthwestern Univ	Los Angeles Calif.	425	Westhampton	Cleveland, Ohio Richmond, Va	1
athwestern Pres. Univ	I of Angeles, Calif Clarkesville, Tenn Georgtown, Tex	130	Westminster	New Wilmington Pa	
uthwestern Univ	Georgtown, Tex	667	Westminster.	Fulton, Mo.	i
okane I niv.	Spokane, Wash	174	Westminster. West Virginia Univ	Fulton, Mo. Morgantown, W. Va. Buckhannon, W. Va.	2,
ring Hill	Spring Hill, Ala Columbia, Mo	334	west virginia wesleyan.	Buckhannon, W. Va	
phens Junior	Columbia, Mo	526 212	Wheaton	WINCHTOD, III	
rling Aven John B. Univ	Sterling, Kan.	534	Wheston Whitman	Norton, Mass Walla Walla, Wash	
tson, John B., Univ vens Inst. of Tech	De Land, Fla	862	Wilherforce	Wilberforce, Ohio	
might.	New Orleans, La.	550	Wilberforce. Williamette Univ	Salem, Ore.	
aight. Squehanna Univ	Selinsgrove, Pa	325	William & Mary	Salem, Ore	
arthmore	.   Swarthmore, Pa	500	Williams	Williamstown, Mass	
et Briar	Sweet Briar, Va Syracuse, N. Y	290	William Woods	Fulton, Mo.	
acuse Univ	Syracuse, N. Y.	5,797	Wilmington	winnington, Ohio	
bor	Tabor, Iowa	550	Wilson	Chambersburg, Pa Rock Hill, S. C.	
lladega. vlor Univ	Upland, Ind.	270	Winthrop. Wisconsin, Univ. of	Madison, Wis.	10.
chers of Indianapolis	Indianapolis, Ind.	900	Wittenberg.	Springfield, Ohio	1
mple Univ		7.110	Wofford	Spartanburg, S. C.	
nnesse	Murfreesboro, Tenn.	125	Wooster	Spartanburg, S. C Wooster, Ohio	
nnessee, Univ. of nnessee, Woman's	Knoxville, Tenn	1,177	Worcester Poly	Worcester. Mass.	
nnessee, Woman's.	Murfreesboro	350	Worcester Poly Wyoming, Univ. of Yale Univ.	Leramie, Wyo	1.0
uas Christian Univ xas. Univ. of	Fort Worth, Tex	850 4,070	Yanhtan	New Haven, Conn	31
iel	Austin, Tex Greenville, Pa.	282	Yankton	Yankton, S. D.	<u> </u>
ledo, Univ	Toledo, Ohio	1.450			
nsylvania	Lexington, Ky	275	(	CAMADA	
nity	Hartford, Conn	213			No.
nity	.   Durham, N. C	625	Name	Location	St
nity Univ	Waxahachie, Tex	350			
State	Angola, Ind.	280	Acadia Univ	Wolfville, N. S.	
fte	Poultney, Vt. Tufts College, Mass.	2,128	Alberta, Univ. of Bishop's College, Univ. of	Edmonton, Alta	1,
fts Iane Univ.	New Orleans, La.	3,000	Bunop's College, Univ. of	Lennoxville, Que. Vancouver, B. C.	
Lea, Univ	Tulsa, Okla.	516	British Columbia, Univ.of Dalhousie Coll. & Univ.	Vancouver, B. C	
eculum	Greenville Tenn	200	Emmanuel College		ł
akegee Inst	Tuskegee, Ala. Barboursville, Ky. College View, Neb Schenectady, N. Y.	1,800	King's College, Univ. of	Saskatoon, Sask. Windsor, N. S. Toronto, Ont.	1
ion .	Barboursville, Ky.	250 525	Knox College	Toronto, Ont.	1
ion ion	Schupectady N.V.	1,419	Laval Univ. of	Quebec Que. Winniper, Man. Montreal, Que.	1 1.
ion Univ.	Jackson, Tenn.	725	Manitoba, Univ. of	Winnipeg, Man	1.
rala	Kenilworth, N. J.	100	McGill Univ.	Montreal, Que	2.
dnue.	Collegeville Pa	252	McMaster Univ.	Toronto, Ont.	
S. Military Acad.	West Point, N. Y Annapolis, Md.	919	Mount Allison Univ.	Montreal, Que Sackville, N. B.	5.
S. Naval Acad.	Annapolis, Md	1,971	New Brunswick, Univ.	Fredericton, N. B.	
	Fayette, Iowa	425	Ottawn, Univ. of	Ottawa, Ont	
ab University	. I CHAIL LAINE UILV. UUMU	1,260	Ottawn, Univ. of Queen's Univ.	Kingston, Ont.	2.
ah. Univ. of	Valneraiso Ind	1 1,000	St. Dunstan's Univ.	Charlottetown, P. E. I.	- ·
ah, Univ. of Iparaiso Univ	Valparaiso, Ind Nashville, Tenn	1 195			
ah, Univ. of Iparaiso Univ nderbilt Univ	Poughkeepsie, N. Y.	1.185	St. Francois Aavier s.	Antigonish. N. S.	
ah, Univ. of Iparaiso Univ Inderbilt Univ	Burlington, Vt.	1,089	St. Francois Aavier s.	Toronto, Ont	
rmont, Univ. of	Burlington, Vt.	1,089 936 510	St. Michael's	Toronto, Ont	1.
ah. Univ. of Iparaiso Univ Inderbilt Univ mar rmont. Univ. of Nanova rguna Intermont	Poughkeepsie, N. Y Burlington, Vt. Villanova, Pa Bristol Va	1,089 936 510 275	St. Michael's	Toronto, Ont Seekstoon, Seek. Toronto, Ont	1.
ah, Univ. of Ilparaiso Univ Inderbilt Univ rmont, Univ. of Ilanova runna Intermont remia Military Inst	Poughkeepsie, N. Y Burlington, Vt. Villanova, Pa Bristol Va	1,069 936 510 275 579	St. Francois Asvier . St. Michael's. Paskatchewan, Univ. of. Toronto, Univ. of. Trinity College, Univ. of Victoria Univ.	Toronto, Ont. Saakatoon, Saak. Toronto, Ont. Toronto, Ont. Toronto, Ont.	1. 5.
ah. Univ. of Iparaiso Univ Inderbilt Univ mar rmont. Univ. of Nanova rguna Intermont	Burlington, Vt.	1,089 936 510 275	St. Michael's	Toronto, Ont	1.

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Collimation tions alike, of teaching, examining, de gree-conferring, etc. Collie (kol'i), a variety of dog espe-tically common in Scotland, though now popular among American dog-fanciers, and from its intelligence of much use to shepherds. It is of medi-um size and varies much in coloring, black with tan-colored legs, muzzle, etc., being highly esteemed. The head is somewhat fox-shaped, the ears erect, but with drooping points, the tail rather log, bushy and with a pronounced curl. Collier (kol'yer), JEREMY, an English cambridge, and having entered into rodror obtained the rectory of Ampton in Suffolk in 1659. He was a scalous owas repeatedly imprisoned for his politi-cial writings. He is chiefly remembered now for his Short View of the Immo-nis Suffolk in 1659. He was a scalous of the theater. He died in 1726. Collier, Shakesperian critic, born in Iondon in 1789; died in 1883. He be-chame known as a critical essayist on old Fordish dramatic literature, and was editor of the new edition of Doddey's (Id Plays in 1825. In 1831 his best Yoerk, the History of English Dromatic Nork, the History of Unit Sonder Literature, and an ex-collent edition of Shakespere, and an ex-collent divin of Shakespere, and an ex-t





### Collimators

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Collision

### Collodion

If one vessel is overtaking another she must keep out of the way of the last-named vessel.

named vessel. **Collodion** (ko-lö'di-on), a substance prepared by dissolving pyroxiline (guncotton) in ether, or in a mixture of ether and alcohol, which forms a useful substitute for adhesive plaster in the case of slight wounds. When the fluid solution is applied to the cut or wound it immediately dries into a semitransparent, tenacious film, which adheres firmly to the part, and under it the wound or abrasion heals without inflammation. In a slightly modified form collodion is also employed as the basis of a photographic process called the colloids (kol'oids), non-crystallizable gum, etc. See Dialysis. **Collot d'Herbois** (kol-o där-bwä),

junction with Garrick). From 1777 till 1791 he conducted the little theater in the Haymarket, London. Colman, GEOBGE ('the Younger'). Born in London in 1762; died there in 1836. He assisted his father as director of the Haymarket Theater, and succeeded him as patentee. His dramas include John Bull, The Heir-at-Law, Poor Gentle-man and Love Laughs at Locksmiths.

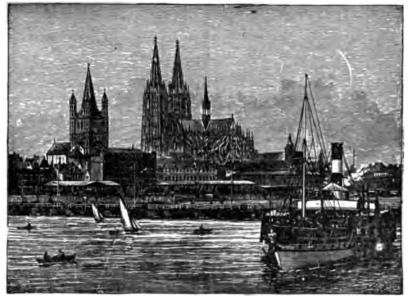
man and Love Laughs at Locksmiths. **Colmar**, or KOLMAB (k ôl'm ăr), a Alsace, formerly of Germany, in Upper Alsace, formerly in the French depart-ment of Haut Rhin, 39 miles s. s. w. Strasburg. It has manufactures of printed goods, calicoes, silks, etc., be-sides cotton-mills, tanneries, etc. It was united to France in 1681, and surrendered to Germany by the Treaty of Versailles, February 26, 1871. Pop. (1905) 41,582. Cöln Sec Gelege

Colloids (koloids), non-crystallizable andes cotton-mills, tancentes, etc. It was genatice, subtances such as gelatine, gum, etc. See Dialysis.
 Collot d'Herbois (koloid), as gelatine, Jean and the Trance, in 1681, and surrendered between a the same and the same and

### Cologne

### Colombia

The most important edifice of all is the it was taken by the French in 1704, ceded cathedral, begun in 1248, one of the to them by the Treaty of Luneville in finest and largest Gothic structures in 1801, and restored to Prussia in 1814. Europe. It was completed only in the It was occupied by the British Army of 19th century, there being expended on Occupation following the armistice of it in 1828-84 over \$5,000.000. It is November, 1918. Pop. 633,904. in the form of a cross; its entire length is about 480 feet; breadth. 282 feet; height to ridge of roof. 202 feet; height of the two western towers, between color painting. It is an earthy variety which is a grand portal. 520 feet, being of lignite or partially fossilized wood.



Cologne, showing Cathedral and Church of St. Martin thus among the highest edifices in the world. The council-house, museum, and time St. Martin Church with its im-posing tower should also be mentioned. The manufactures embrace sugar, to-bacco, glue, carpets, leather, machinery, chemicals, pianos, and the celebrated cau de Cologne. The trade by river and rilway is very great.—Cologne is of pre-Christian origin, and was originally talled *Oppidum T biorum*, being the chief town of the Tbii, a German nation. The Romans made it a colony A.D. 51, and called it Colonia Aurippina (whence tached to the Frankish empire, and becane one of the most powerful and becane one of the Hanseatic League, int latterly it declined, and its commercial importance was greatly diminished when 11--3

### Colombia

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### Colombo

land. On the north side of the fort, on the margin of the sea, is the Pettah or Black Town, inhabited chiefly by Sin-ghalese, while in the environs are most of the houses occupied by the English. The public buildings comprise the gov-ernment offices, government house, su-preme court, museum, etc. Through the construction of a breakwater and other works there is now excellent harbor ac-commodation, and numerous versals call

ment of troops, ranking below a briga-dier-general, and above a lieutenantcolonel.

the margin of the sea, is the Pettah or diergeneral, and above a lieutenant-Black Town, inhabited chiefly by Sin-colonel. Black Town, inhabited chiefly by Sin-colonel. Colonna (ko-lon'a), an Italian family that had become important as early as the 8th century. Its fame early as the 8th century. Its fame during the middle ages eclipsed that of construction of a breakwater and other works there is now excellent harbor ac-commodation, and numerous vessels call bers. Pop. (1911), 213,396. Colonn (kö'lun; Gr. kölon), the mid-time, or that which lies between the creat and the rectum or terminal por-tion. In man it is about 41/2 feet long, and forms a series of pouches in which It is itself believed to have some diges-tive power. Colonn a punctuation mark, consist-

the digested food is for a time detained. by the balve to a settlement of the bis field believed to have some digestive power.
Co'lon, a punctuation mark, consisting the sense that sometimes might also indicated by a full step. It also indicates a connection between a preceding a quotation.
Colon, formerly AsprixWALL, a sequer the sense of the Marquis of Personstable of Naples, and born in 140. At the age of nineteen she was married to the son of the Marquis of Personstable of Naples, and born in 140. At the age of nineteen she was married to the son of the Marquis of Personstable of Naples, and born in 140. At the age of nineteen she was married to the son of the Marquis of Personstable of Naples, and born in 140. At the age of nineteen she was married to the son of the Marquis of Personstable of Naples, and born in 140. At the age of nineteen she was married to the son of the Marquis of Personstable of Naples, and born in the north side of the Istmut extremity of the interocentic railway, and near the solicet of the deep affection of Michael Angelo, then in his sixty-fourth year, who operand is used to the harbor. The stablished in optra transit trads before the cunal way and mar the object of the deep affection of Michael Angelo, then in his sixty-fourth year, who optrantine, and by a treat 180 before the cunal way. It had an important transit trads before the cunal way and be a treat. The substituent of the sole of the distinguished work is the Rime Spiriturity transformed. Since 1983 the culture and in poetry. She became the object of the deep affection of Michael Angelo, then in his sixty-fourth year, who begin in a two of Cuba. Province of the disting on the extensive harbor accommodation for colorned (ker'nel), the commander of Colonny (kol'o-ni), a settlement formed in dependence on the mother formed in dependence. In the british server of it a bistorical sense. Properly, perhaps, susually bestowed upon officers of supe the term should be initied to a settlement formed in dep

### Colony

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### Colony

pendent republic. The Ladrone group by the whole of India, this vast territory was transferred to Germany with the being still under the government of the exception of Guam, held by the United East India Company—a mercantile com-states. The colonies of Spain are now pany, controlled by Parliament, but ex-confined to about 250,000 sq. miles in ercising many important functions of Africa and some small islands. The hate of Fhilip II, who prohibited Dutch vessels from the port of Lisbon, forced the people of Holland to import directly from India or lose the large America, which, though allowed to lie carrying trade they had acquired. Sev-dormant for nearly a century, was never eral companies were soon formed, and in relinquished, and which, in the reign of 1602 they were united into one, the James I, led to the beginning of coloniza-Dutch East India The Dutch now 1607 the colonists sent out by the London rapidly deprived the Portuguese of nearly a colony at the Cape of Good Hope ginia. The next great settlement was (1623-60), which were soon lost, and pany, made extensive conquests in Brasil (1623-60), which were soon lost, and pany, made extensive conquests in Brasil (1623-60), which were soon lost, and pany, made extensive conquests in Brasil (1623-60), which were soon lost, and pany, made extensive conquests in Brasil (1623-60), which were soon lost, and pany more permanent ones on some of the shire, Maine, New Jersey, Connecticut, mailer West India Islands, as San Hode Island, soon followed. In the Exata a, Curacoa, Saba, etc. The grow-ing power of the British and the loss of territory the British found the Hudson River ing power of the nation. But the force, changing its name to New York in Dutch still possess numerous colonies in that of New Jersey, Connecticut, peak in dependence during the Napo-leonic wars were heavy blows to the important are Java, Sumatra, Dutch

leonic wars were heavy blows to the select the county of New Ansternam by colonial power of the nation. But the force, changing its name to New York in Dutch still possess numerous colonies in honor of James, Duke of York, Pennsyi-wania was founded by William Penn, and important are Java, Sumatra, Dutch colonized with Quakers in 1082; Mary-Borneo, the Molucca Islands, and part of land in 1031 by a party from Virginla; New Guinea, also several small islands. Carolina in 1070 and Georgia in 1732 by on the West Indies and Surinam. No colonizing power of Europe has had a career of such uniform prosperity as Ialands, including Barbadoes, half of St. Great Britain. The English attempts at Christopher's (1625), and soon after colonization began nearly at the same time with the Dutch. After many fruit-less attempts to find a northeast or north-1621 and 1033. Canada was surrendered west passage to the East Indies, English to Britain at the Peace of Paris in 1763, vessels found their way round the Cape In 1704 began the disputes between of Good Hope to the East Indies in 1591. Britain and its North American colonies, The East India Company was established which terminated with the acknowledg-in 1600. English commerce with India, ment of the independence of the United however, was not at first important, and the continent up till the beginning of the 18th century. The ruin of the Moryi the 18th century. The ruin of the Moryi to interfere in Herchtower compelled penal colonies. New South Wales, tunity for the growth of British power. The in 1642, followed in 1863. West Aus-native princes and governors. The in 1642, followed in 1853 and made as a the upper hand, and the victory of Clienna's Land), discovered by Tasman attive princes and governors. The in 1642, followed in 1855 and made as the upper hand, and the victory of Clienna's Land), discovered by Tasman the upper hand, and the victory of the independent colony in 1855. South Aus-steres appeared at first to maintain the traila bucame a free colony in 1850. View

East India Company—a mercantile com-pany, controlled by Parliament, but ex-ercising many important functions of sovereignty. The discoveries of the Cabots, follow-ing soon after the voyages of Columbus, gave the English crown a claim to North America, which, though allowed to lie dormant for nearly a century, was never relinquished, and which, in the reign of James I, led to the beginning of coloniza-tion on a large scale. Kaleigh's settle-ment on Roanoke Island (North Caro-lina) in 1585 proved a failure, but in 1607 the colonists sent out by the London Company to Chesapeake Bay founded Jamestown, on the James River, in Vir-ginia. The next great settlement was that of the Pilgrim Fathers, who landed December 21, 1620, in Massachusetts Bay. The colonization of New Hamp-shire, Maine, New Jersey, Connecticut, Rhode Island, soon followed. In the State of New York and the Hudson River territory the British found the Dutch al-ready in possession; but in 1664 they seized the colony of New Amsterdam by force, changing its name to New York in honor of James, Duke of York. Pennsyl-vania was founded by William Penn. and colonized with Quakers in 1682; Mary-land in 1631 by a party from Virginla; Carolina in 1670 and Georgia in 1732 by colonies from England. Colonies were early established in the West India Islands, including Barbadoes, half of St. Christopher's (1625), and soon after many smaller islands. Newfoundland was taken possession of in 1583. Colonized in 1621 and 1633. Canada was surrendered to Britain at the Peace of Paris in 1765. In 1764 began the disputes between Britain and its North American colonies, which terminated with the acknowledg-ment of the independence of the United Nates, Canada still remaining a British dependency. Australia was discovered in the begin-ming of the seventeenth century. The

Colony

annexed in 1874 and New Guinea in 1884. In South Africa, Cape Colony, first set-tled by the Dutch in 1652, became an English colony in 1814. Great Britain holds possession of the Boer republics and other vast stretches in Africa. Egypt was formally declared a protectorate in 1914 during the European war; Cyprus was annexed at the same time. France was somewhat late in establish-ing colonies. Between 1627 a.d 1636 the West Indian Islands of St. Christopher's, Guadeloupe, and Martinique were colo-nized by private persons. Champlain was the pioneer of the French in the explora-tion of the North American continent, and founded Quebec in 1608. Colbert purchased several West Indian Islands, as Martinique, Guadeloupe, St. Lucia, etc., and sent out colonists in 1664 to Cayenne. In 1670 the East India Company formed by Colbert founded Pondicherry, which became the capital of extensive posses-sions in the East Indian Lislands, and she seemed to have a prosperous career before her in India. In time, however, the rival interests of British and French colonists brought about a conflict which terminated in the loss of Canada and other North American possessions, as well as many of the West Indian Islands, while the dominion of Indua passed into the hands of the British.

hands of the British. The chief colonial possessions of France are: Algeria, Tunis, part of Morocco, French West Africa, Equatorial Africa, Somaliland, Madagascar, Mayotta, Island of Reunion, French India, Cochin-China, Guadeloupe, Martinique, French Guiana, and some islands in the Pacific. Of recent years Germany has made an effort to take rank as a colonial power, and at the beginning of the European war (1914) had an African empire of over

and at the beginning of the European war (1914) had an African empire of over 1,000,000 sq. miles. Togo, Southwest Africa, and the Cameroons were acquired in 1884, East Africa in the following year. German New Guinea, which included the Bismarck Archipelago, Kaiserwilhelms-land, and some of the Solomon islands, came under the German colonial govern-ment in 1884. The Carolines and other islands in the Pacific were acquired in 1899. The long arm of the German em-pire stretched out to China, where Great Britain had established herself at Hong-kong, Weihaiwei, and elsewhere, and in 1898 the bay and surrounding coast of Kino-chau (192) square miles), were leased by China to Germany for a period of 90 years, but Japan took possession of

the territory during the European war. By the treaty of Versailles, 1919, Ger-many lost all her colonial possessions. Great Britain and dominions gained much the larger portion of Germany's posses-sions in Africa, also the Pacific islands south of the equator. France gained some of Germany's African possessions. Japan is the most recent of the empire-building nations, her policy of expansion dating from 1854, the year in which Com-modore Perry succeeded in establishing treaty relations between Japan and the United States. French officers remod-elled her army; British sailors her navy, and following her easily successful war with China she was ceded Formosa in 1894. As a result of the Russo-Japanese war the paramount interests of Japan in Korea were recognized, and in 1910 Korea was formally annexed by Japan, and given the name of Cho-sen. Japan also nequired the Liao-Tung peninsula with Port Arthur, China's strongest fortress, which Russia had seized. The port of Tsing-tao (Kiao-chow), which Germany had leased from China, was taken by Japan during the European war in 1914. Her 'special interests' in China were recognized by the United States, and an extension of her colonial power in that country is expected. Belgium became a colonial power by the

recognized by the United States, and an extension of her colonial power in that country is expected. Belgium became a colonial power by the annexation in 1908 of the Congo Free State, which had been under the personal overlordship of Leopold II, King of the Belgians, who had governed the territory with extreme cruelty. Italy attempted to take part in the par-tition of Africa among the European powers, but had an unfortunate experi-ence. In 1882 it erected into a colony a coaling station held by it on the Red Sea. in 1885 occupied Massowah, and in 1889 combined its colonial territory under the name of Eritrea. This lay along the Red Sea coast of Abyssinia and the whole of that ancient kingdom came to be looked upon as under an Italian protectorate. But there was a rude awakening in 1885 when an Italian force, which had pene-trated Abyssinia, was attacked at Adowa and completely defeated. As a result, the independence of Abyssil was attacked at Adowa and completely defeated. As a result, the independence of Abyssil held Eritria, and added to it a larger district in Somaliland, in the extreme eastern section of Africa. It seized on Tripoli, a Turkish possession, in 1911, a war ensuing between the Ital-ians and the Turks and Arabs. Denmark, the remaining colonizing country of En-rope, possesses Iceland, Greenland and the remaining colonizing country of Eu-rope, possesses Iceland, Greenland and the Faroe Islands, ancient acquisitions, though of little value. She owned Santa Cruz, Saint Thomas and Saint John, three



### Colony

is in the Virgin Island group of the Indias, but the United States pur-d the Danish West Indias from Den-

West Indias, but the United States pur-chased the Danish West Indias from Den-mark in 1907. At the end of the Spanish-American war (1898) the United States found itself with four new over-seas possessions : Ha-weil, Porto Rico, Guam, and the Philip-pines. Prior to the war the native queen of Hawaii had been deposed and the new government had attampted to negotiate a treaty providing for annexation to the United States. President Cleveland made an effort to restore the deposed queen to power, but failing in this, another treaty of annexation was presented to the Senate, in President McKinley's administration. This was still pending when the war broke out. The events in the Philippines forcibly called the attention of the coun-try to the necessity for controlling Ha-waii, which was invaluable as a coaling station for the trans-Pacific voyage, and action upon the treaty was consequently hastened. The annexation was finally ef-fected by a joint resolution passed July 7, 1898. The other new possestions were taken 1898

hastened. The anneration was finally ef-fected by a joint resolution passed July 7, 1898. The other new possessions were taken from Spain as the result of military vic-tories. Porto Rico had been invaded and in large part conquered by American troops near the end of the war, and its transfer to American sovereighty was therefore looked upon in the United States as the natural consequence of the conflict. The people of the island appar-ently desired annexation to the Union, since they had little ambition, as had the Cubans, for national independence. The provision was therefore included without question in the treaty of peace. The same was true of the little island of Guam in the Pacific, which was taken simply for use as a coaling station. With the Philippines, however, the case was different. The original occupation of these islands by the United States might almost be described as an accident. At the outbreak of hostilities, Admiral Dewey, with the United States Pacific squadron, had received orders to attack the Spanish naval forces at Manila. This was an obvious move from a military point of view, because the destruction of the enemy's naval forces in the Far East was necessary both for the security of the West Coast of the United States and for the describy of American commerce. The administration had at the time no ideas of acquiring the Philippines. After Dewey's brilliant victory at Manila Bay, when the Admiral asked that troops be sent to oc-cupy the city, and to destroy the Spanish army there, the officials at Washington wave so little prepared for an aggressive

campaign to seize the islands that it was several weeks before the army could be sent. Even after the American forces had taken Manila, there seems to have been little intention on the part of the admin-istration at Washington to hold the islands permanently. Aguinaldo, the been brought back from erile in an Amer-ican war ship, and had been encouraged and assisted by Dewey in starting a new uprising. There was no agreement to assist him in securing the independence of the islands, but there was a sort of alli-ance between him and the American forces against the common energy. Agui-naldo had occupied nearly all of the rest of the Island of Luxon when the United States forces took Manila. The preliminary pence protocol had

of the Island of Luzon when the United States forces took Manila. The preliminary peace protocol had provided that 'the United States shall hold and occupy the city, bay, and harbor of Manila, pending the conclusion of a treaty of peace, which shall determine the control, disposition, and government of the Philippines.' This had been regarded by Spain as providing for the ultimate re-turn of the islands to her. President McKinley apparently had no desire to re-tain the islands for the United States, and public opinion in this country was en-tirely undecided as to the course which should be pursued. In the interval be-tween the signature of the protocol on August 12, 1899, and the conclusion of the Treaty of Peace on December 10 of the same year, however, there was a com-plete change in the attitude of the Ameri-can people, which was reflected in the acthe same year, however, there was a com-plete change in the attitude of the Ameri-can people, which was reflected in the ac-tion of the government. When the peace commissioners left the United States in September, they were instructed to de-mand the cession of the Island of Luson and the grant of reciprocal commercial privileges in the other islands of the archipelago. On October 26, they were instructed by cable to demand the cession of the entire group. The Spanish com-missioners objected strongly, but were finally forced to accept the compensation offered—the payment by the United States to Spain of \$20,000,000. The Fhilippines thus became the property of the United States. The sudden change in the attitude of the United States was due to the so-called 'imperialistic' movement which swept the country in the autumn of 1896. There were several factors which contrib-uted to arouse a strong popular opposition

the islands by Spain had been demanded by the pacee commissioners on political commercial and humanitarian ground.

### Colony

### Colony

Their retention seemed, indeed, to be the only course consonant with the national honor and dignity. It was impossible to return them to Spain, after the revela-tions which had been made regarding the honor and dignity. It was impossible to return them to Spain, after the revela-tions which had been made regarding the inefficiency and barbarousness of her rule there, and after the alliance which had existed between the American forces and the Philippine insurgents under Agui-naldo. It was equally impossible to make them independent, because of their mani-fest unfitness for self-government. There was a strong belief that Germany, which had become an object of grave suspicion since the unpleasant episode between the commander of her far eastern fleet and Admiral Dewey after the battle of Manila Bay, would seize the archipelago as soon as the United States withdrew. The vic-tories of the war, moreover, had aroused a consciousness of national strength and national greatness which lifted the people of the United States out of their absorp-tion in their own internal affairs, and filled them with an ambition to play a larger part in the world than ever before. Newspapers and orntors began to speak of the United States as a world power, and to point to the acquisition of the Philippines as the first step in the ful-filment of our destiny to dominate the Pacific. There was a strong feeling that the United States ought to obtain a terri-torial foothold in the Far East, in view of the apparently approaching partition of China. The seizure of several ports in that empire by European powers in 1898 had aroused grave doubts as to whether it was destined to remain independent many years longer, and the interests of the United States in the future of the empire were felt to be so great that it could hardly afford to neglect an opportunity to obtain a naval and conmercial base from which it might exercise an influence upon the course of events. The expansionist movement was, per-haps, not so much political and senti-mental as economic. The business inter-

The expansionist movement was, per-haps, not so much political and senti-mental as economic. The business intermental as economic. The business inter-ests of the country were convinced that it was time for the United States to adopt position to the administration's policy the imperialist ideal which had guided the was so strong in the Senate that the foreign policy of England, France, and treaty of peace might not have been ac-Germany during the three decades just cepted if it had not been for the rebellion past. Their arguments were the same as in the Philippines, which made many of those of the commercial leaders who fa-its opponents feel that it would be cow-vored expansion in the European coun-ardice to withdraw from the Islands until trices. They believed that the United States had reached a point where it was after its vote of ratification, however, the impossible for it longer to subsist on its Senate passed a resolution stating that internal trade. The country was at the its action did not constitute a final deter-time passing through an era of immense expansion in commerce and manufactures. The total exports, which had been \$857,-\$28,684 in 1890, were \$882,606,938 in among the nations is the result of the states for the substite the trade and manufactures.

1896, \$1,050,993,556 in 1897, and 1,231,-482,330 in 1898. (1) The percentage of manufactured goods to the total exports had increased from 14.78 per cent in 1890 to 21.18 per cent in 1890 and to 30.15 per cent in 1897. (2) This change in the character of our trade, the imperialists be-lieved, would force the United States to embark on a policy of territorial expan-sion. The raw materials which had hith-erto predominated in the country's foreign commerce had found a ready market in the great manufacturing countries of Eu-rope, but the increase in the volume of manufactured goods made it vital to seek new commercial outlets in countries which were industrially less developed. These outlets could only be obtained in colonies, for the great powers of the world, which had already divided between them the greater part of the earth's surface, were applying or threatening to apply to their possessions a closed door policy, which would exclude the trade of other nations. The Philippines would not only furnish for American goods a market of great ul-timate potentialities, but would also pro-vide a center of distribution for Ameri-can trade in all parts of the Far East. The arguments of the imperialists were violently combated in the United States. by persons who believed that the new movement involved an abandonment of the nation's traditional policies and ideals. The opponents of expansion declared that meither our form of government nor our

the nation's traditional policies and ideals. The opponents of expansion declared that neither our form of government nor our national experience fitted us for the con-trol of subject races, and that the ac-guisition of colonies could not but affect injuriously our own internal political and economic life. Many regarded the exer-cise of power over another people as a violation of the principles haid down in the Declaration of Independence and the Constitution, and branded the whole movement as un-American and pernicious. Others said that the new possessions movement as un-American and pernicious. Others said that the new possessions would force the United States to become a military power, with danger to the lib-erty and security of its people. The op-position to the administration's policy was so strong in the Senate that the treaty of peace might not have been ac-cepted if it had not been for the rebellion in the Philippines, which made many of its opponents feel that it would be cow-ardice to withdraw from the Islands until order had been restored. Immediately after its vote of ratification, however, the Senate passed a resolution stating that

### Colophon

intervention of the powers following a suries of internal disturbances, fostered, it must be admitted, by the three foreign powers pussessing considerable interests in Samoa: Germany, Great Britain re-ceived the Solomon and Tonga Islands, Germany got Samoa, and the United States took possession of Tutuila and a few other small islands. The Canal Zone a strin of land extend-

The Canal Zone, a strip of land extend-ing 5 miles on either side of the Panama Canal, was acquired by agreement with the newly created republic of Panama, in 1983, the United States paying \$10,000,-000 in gold and \$250,000 annually for the particul right of compution of the ferriperpetual right of occupation of the terri-

perpetual right of occupation of any The Virgin Islands, formerly the Dan-ish West Indies, were acquired by the United States in 1917, the compensation being \$25,000,000. The islands composing the group are Santa Cruz, Saint Thomas, and Saint John. Colophon (kol'of on). an ancient Greek city of Asia Minor, about 15 miles N. of Eplesus, one of the places claimed as the birthplace of Homer. Here dwelt Minnermus, the elegiac poet, and some other men of emi-mence.

**Colophon**, the device or imprint at work, which in old books frequently stated work, which in old blocks requently stated the name of the author as well as the printer's name, along with the date and place of publication, most of which infor-mation is now put in the title-page. **Colophony** (kol-of'o-ni), the dark resin obtained by distil-

Color (kul'er), the name given to dis-tinguish the various sensations that lights of various rates of vibration give to the eye. As in the case with many of the words that denote our sensa-tions, the word color is also applied to the properties of bodies that cause them to emit the light that thus affects our senses. The molecular constitution of a body de-termines the observed

The molecular constitution of a body de-termines the character and number of the light vibrations it returns to the eye, and so gives to each body its own character-istic color; hence the term color is used to denote that in respect of which bodies have a different appearance to the eye independently of their form. Ordinary white light (the light which comes from an incandescent solid or liquid) when transmitted through tri-angular prisms of glass or other media differing in dispersive power from the atmosphere is shown to consist of a number of colored lights, which, meeting th eye, together p. sluce the sensation of white light. (See Spectrum and

Light.) The colors thus shown are usually said to be seven—red, orange, yel-low, green, blue, indigo, violet; although in reality there is an enormous, if not an infinite number of perfectly distinct colors in light. The seven colors are frequently called the primary colors, and other tints and shades are producible by mixing them; but in a stricter sense the primary colors are three in number, namely, red, green and violet (or blue). These three colors or kinds of light cannot be re-solved into any others. In the scientific sense of the word white and black are not considered colors, a white body reflecting and a black body absorbing all the rays of light without separating them, whereas the colors proper are due to separation and reflection or by refraction. If a body absorbs every other kind of light and re-flects or transmits red light only, it will appear of a red color; if it absorbs every kind except blue rays, it will appear blue; and so on. If more than one kind of light uppear of a color compounded of these different rays of light. In art the term color is applied to that

kind except blue rays, it will appear blue; and so on. If more than one kind of light be transmitted or reflected the object will appear of a color compounded of these different rays of light. In art the term color is applied to that produces a particular and desired effect in painting. The colors of the spectrum have to be distinguished from color used in reference to pigments. The pigments red, blue and yellow, regarded in the arts as the primary colors, produce effects, when mixed, very different from those produced by admixture of the correspond-ing spectrum colors. These three pigment colors form other colors thus: red and yellow make orange, yellow and blue make green, and red and blue make purple; but red, blue and yellow cannot be produced by any combination of the other colors.— *Local colors* are those which are natural to a particular object in a picture, and by which it is distinguished from other ob-jects.—Neutral colors, those in which the .-*Positice colors*, those which are un-bodens of the objects which surround them. -*Positice colors*, those which are un-topicted by autophysical endors, colors of the objects which surround them. -*Positice colors*, those which are un-bole together make white; it us any of the other two.—Subjectice or accidentary colors of the imaginary complementary to colors seen after fixing the eye for a short time on a bright-colored object, and then turning it suddenly to a white or light-colors unface. Colors in heraklery are azwre, blue; *sules*, red : *sable*, black; verf, green *surpure*, purple; *tenné* or *faceny*, orange; and *murrey* or *sanguine*, dark crimson. (See Heradary.) Military colors are the

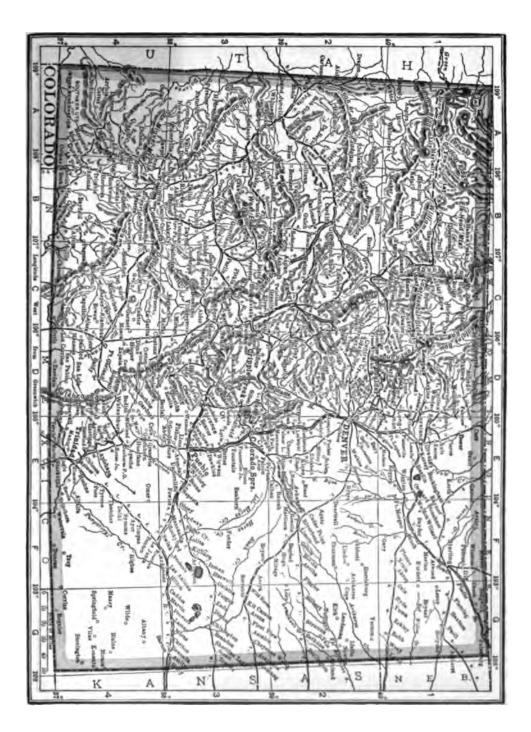
### Colorado

pasture.

the state is a great plain well adapted for pasture. The rivers include the Arkansas, South Platte, Grand River, etc.; some of them remarkable for the grandeur of their cafions. (See Arizona.) Among wild an-imals are found the grizzly, the black and the brown bear, prairie-wolf, several kinds of deer, big-horn sheep, etc. There are extensive forests. In the mountain re-gions the rainfall is small and of the arable lands in the state a great portion require irrigation. As a result the agri-cultural development has had a compara-tively recent beginning. Although a large part of its area is of a character which makes the growing of crops impossible, large portions are admirably adapted for cultivation. The eastern two-fifths, which lies within the Great Plains section of the United States, is largely utilized for graz-ing purposes, but dry farming has been successful and irrigated portions yield large crops. The the wast of the divide in the San

successful and irrigated portions yield harge crops. To the west of the divide in the San Luis valley, in the south-central part of the state, the rainfall is at times consid-crable. To the east of the divide, on the plains, the rainfall is heavier, and here some crops are grown without irrigation. The growth of agriculture is indicated by the following figures: The number of all forms in 1910 was 46,170, compared with 24,700 in 1900. The value of farm prop-erty from 1900 to 1910 shows a remark-able increase. In the latter year it was \$491,471,506 as compared with \$161,045,-141 in 1900. Orchard fruits are in some parts brought to an unusual degree of parts brought to an unusual degree of

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#### Colorado

regulation of railway rates. Colorado was expanded as a territory in 1861, and ad-mitted as a State in 1876. The State cap-ital is Dawrer. Pop. (1900) 538,700; (1910) 789,074; (1920) 538,776. Colorado, UMIVERSITT OF, a State co-Bonider, Colorado, opened in 1877. Num-ber of teachers, 200; students, 1500. Colorado, a name of two rivers of tachers, 200; students, 1500. Colorado, a name of two rivers of teachers, 200; students, 1500. Colorado, a name of two rivers of the WESTERN COLORADO, or RIO COLO-nabo, formed by the junction of the Green and Grand rivers, at about lat. 38° N; lon. 110° w., in Utah. It flows southwest and south through Arisons, and between Arizona and Nevada and California, and after a total course, in-cluding Green River, of about 2000 miles, falls into the Gulf of California. Among the most wonderful natural objects in North America is the Grand Caffon of the Colorado, between lon. 112° and 115° w. Here the river flows between walls of rock which are nearly vertical, and are in some places 6000 feet high. This cafion is more than 300 miles long. (2) A river in Ar-gentina, about 620 miles long, which empties into the Atlantic Ocean. Colorado Beetle, an American spe-cies of be et le

Color-blindness occurs in eyes whose power of vision, as to form and distance, is quite perfect, and may exist unknown to the person affected by it. This defect is common, especially among men. The cause of it in almost every case which has been carefully investigated has been found to be seated in the sensorium, not in the visual apparatus. It will be easily under-stood that those whose eyesight is thus defective are disqualified for holding vari-ous positions. ous positions.

**Colorimeter** (kol-o-rim'e-ter), an in-strument for measuring the depth of color in a liquid by compari-son with a standard liquid of the same son tint.

Se r. ion. 110<sup>10</sup> w.v. in Utah. If flow is the depth of color in a liquid by comparison the southwest and south through Arisona, and Nevaia and California, and after a total course, in-Color Antiente are nearly vertical, and are in North America is the Grand Cafion of the the is first made, and a copy transmort than 300 miles long. (2) A river in Arrente at a course of about 900 miles falls into the Guif of Mexico at the the is first made, and as the paper former than 300 miles long. (2) A river in Arrente a sour deli of Mexico at the source is made to fit in, or reguiser, which after a course of about 900 miles falls into the Atlantic Ocean.
Colorado Beetle, an American specification, nearly half an inch in a subout 620 miles falls into the Atlantic Ocean.
Colorado Beetle, an American specification, nearly half an inch in a subout 620 miles falls more to all is popularly known as the Potnto Buy.
Colorado Springs, county seat of a bloot for book illustration or similar of colorado Springs, county seat of coloradio Springs, total or partial known at the performans, or all spoularly known at the seate of Colorado College and has ore sented to dry before the next is usually of since and prepared in the sume color; the same color; the seate of Colorado Springs, county seat of coloradio Springs, colar, and wither resort.
Colorado Springs, total or partial known and known and wither resort or same reduced in number by a method of Pike's Peak; elevation, 6038 feet. It is total or capitity of since and prepared in the sume color; the same color, the same color, the same color, the same color, so that light so the same color, the same color, the same color, the same color,

### Color-Sergeant

ing officer and staff when carried past in review and in general by all officers and enlisted men under regulations prescribed by the Army Regulations. Similar cus-toms prevail in the navy. The national flag is raised at sunrise with a gun salute and lowered at sunset with a gun salute— the playing of the "Star Spangled Ban-ner" by the band.

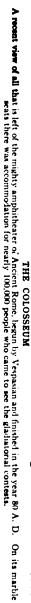
Color-sergeant, a non-commissioned officer in the army who is a member of the regimental staff. There are two color-sergeants to each reg-iment, who carry and have charge of the national and regimental colors and are escorted by the color-guard. Color-ser-geants rank line-sergeants and receive geants rar better pay.

better pay. **Colossæ** (kil-os'sē), an ancient city of Asia Minor, in Phrygia, on the Lycus, a branch of the Maander. It was the seat of one of the early churches of Asia to whom the apostle Paul wrote about 62 or 63 A. D. **Colosseum** (kol-o-sē'um), a name given to the Flavian Amphitheater in Rome, a large edifice for chading of the seat of t

Amphitheater in Rome, a large edifice for gladiatorial combats, fights of wild beasts, and similar sports. It was begun by Vespasian, and finished by Titus, 80 A. D. The outline of the Colosseum is elliptical, the exterior length of the building being 620 and its breadth 513 feet; it is pierced with aichte ensuings or yomituria in the 620 and its breadth 513 feet; it is pierced with eighty openings or vomitaria in the ground story, over which are superim-posed three other stories, the whole rising perpendicularly to the height of 160 feet. Although two-thirds of the original build-ing have disappeared, it is still a wonder-ful structure.

ful structure. **Colossians,** EPISTLE TO THE, An apostle Paul, when he was a prisoner in Rome. It falls naturally into four parts; (1) introduction and thanksgiving; (2) nature and work of Christ; (3) doetrine; (4) personal matters and salutations. The third chapter is a picture of the Christian life as seen by Paul. It is a plea that, having put off 'the old man' the Colossians shall live like new men, putting aside all uncharitableness, bear-ing themselves with meckness and kind-ness. The probabilities are that Epaphras, of whom the writer speaks, preached first to the Colossians and was the means of their conversion. Among other early Christian missionaries whom Paul men-tions here are Onesimus and Tychicus, the bearers of the epistle; Luke, 'the be-loved physician': Aristarchus, a 'fellow prisoner': John Mark, called here Mar-cus; Barnabus, a landowner of Cyprus, who sold his land and laid the price at the fee of the apostles in Jerusalem, be-roming a co-preacher with Paul; and EPISTLE

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# Colporteur

Ansonan apprenension of a surgical opera-tion he committed suicide. He wrote several satirical poems, Hypocrisy, Napoleon, etc.; but his most remarkable work is Lacon, or Many Things in Few Words.

**Colt's-foot**, *Tussilāgo Farjāra*, a weed of the order Composite, the leaves of which were once much em-ployed as a remedy for asthma and coughs. The name is given from the leaf somewhat resembling the foot of a colt, being broad and heart-shaped; the flowers are vallew vellow

Colt's Revolver. See Revolver.

 Colporteur (kol-por-teur'), a French term now naturalized in ing monasteries, all of which he made the United States, and appropriated to a subject to that which he had set up on class of men always, or most commonly, the island of Hy. The Columban church subsidized by societies or associations was in some points of doctrine and cerewith the view of disseminating religious in some points of doctrine and cerewith the view of disseminating religious in some points of doctrine and cerewith the view of disseminating religious in some points of doctrine and cerewith the view of disseminating religious in some points of doctrine and cerewith the view of disseminating religious in some points of doctrine and cerewith the view of disseminating religious in owel no allegiance. Shortly before his for sale, generally at reduced rates.
 Colt (költ). SAMUEL (1814-62), an well-known life of St. Columba, 1 ita American manufacturer, inventor Sancti Columba written by St. Adamman, Abbot of Iona.
 Conton (köl'ton). CHARLES CALEB, an Datent for Longish writer, born 1780; died born in Ireland apparently about 540, be came a monk in the Irish monastery of He held the united living of Kew and Petersham, but was eccentric in his manners, extravagant in his habits, and irremediably addicted to gambling and its attendant vices. Bewildered by his pecumiary obligations, he fled to the United which was adopted in latter times by States, and after a sojourn there of some years took up his abode in Paris, where he acquired a fortune of \$125,000 by and Fontaine in Burgundy. His rule, many monasteries in France, commands bilind obedience, silence, fasting, prayers and labor, much more severe than the several satirical poems, Huppocrisy. He retained also the old ecclesinstical cus-toms of the Irish, among which is the celebration of Easter at a different time from the Roman Church. He appears to have remained at Luxeuil for nearly twenty years. He then went among the heathen Alemanni, and preached Chris-tianity in Switzerland. About 612 he passed into Lombardy, and founded the monastery of Bobbio, in which he died in 615. His writings comprise his monastic rule, sermons, some poems and ecclesias-tical treatises. His life was written by Abbot Jonas, a successor in the abbacy of Bobbio. He retained also the old ecclesiastical cus-Bobbio.

Colut's Revolver. See Revolver.
 Coluber (kol'ū-ber), a genus of non-venomous serpents, which in-snakes the Coluber Exculapii, common in the neighborhood of Rome, and re-garded as the serpent which was sacred to Esculapius, the god of medicine. To the same family belongs the common ringed suake of Britain (Tropidonötus antrir), which attains a length of 3 or 4 feet.
 Columba (ko-lum'ba). See Calumba.
 Columba (ko-lum'ba).
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### Columbia

The city was set on fire while occupied by General Sherman's army in 1865. It was made the State capital in 1790. Pop. (1910) 26,319; (1920) 37,524. **Columbia**, a city, county seat of **Columbia**, a city, county seat of miles w. by N. of St. Louis. It is pri-marily a school town, although coal min-ing and shoe manufacturing are carried ou. It is the seat of the University of Missouri (q. v.), Christian College (a school for girls under the control of the Christian Church), Stephens College (a school for girls under the control of the Baptist Church), Missouri Bible College (the State divinity school of the Christian Church), a coaching school for Annapolis, a school of commerce, and an excellent system of city schools. Pop. (1910) 9062; (1920) 10,379. **Columbia**, a borough of Lancaster Co., Pennsylvania, on the Susquehanna River, S1 miles w. of Phila-delphia. It is the trading center of a wide area and has manufactures of iron, silk, boilers, stoves, brushes, umbrellas, cut glass, wagons, automobile bodies, castings, etc. Pon 10.836.

area and has manufactures of iron, silk, boilers, stoves, brushes, umbrellas, cut glass, wagons, automobile bodies, castings, etc. Pop. 10,836. **Columbia**, a city, county seat of miles s. of Nashville. It has flour mills, extensive phosphate, live-stock, cotton and grain interests, and manufactures of fur-niture, etc. It has a military academy, arsenal, and the Columbia Institute for young ladies. Pop. 5526. **Columbia**, DISTRICT OF, a small fract of country on the east bank of the Potomac River, about 120 miles from its mouth, surrounded on three sides by Maryland, and forming a neutral

niture, etc. It has a military academy, tric power. It is the second cotton mill arsenal, and the Columbia Institute for young ladies. Pop. 5526. The second cotton mill arsenal, and the Columbia Institute for contry on the east bank of the Potomac River, about 120 bank of the Potomac River, about 120 bank of the Potomac River, about 120 ber and building products, fortilizer, brick, tile, sewer pipe, show cases and fixtures, lum-bank of the Potomac River, about 120 ber and building products, bottled goods, miles from its mouth, surrounded on three cite. Camp Benning, the newly established district for the seat of the United States in square miles; was formed into a territory in 1871; and contains the city of Wash-pop. (1910) 20,554; (1920) 31,125. Columbus, the capital of Ohio, in rits, is now part of Washington. As originally laid out, the district was 10 wife, in 1846 and only the Maryland section re-tained. The affairs of the district and of Washington are administered by three Catholic Cathedral, Memorial Hall, and commissioners directly under Congress. Pop. (1910) 331,009; (1920) 437,571. Columbia River, of the United State institutions for the feeble-minded, the blind and deaf, and the insane, are states, flowing into the Pacific Ocean, and in British Columbia. It has a very wind-in British Columbia. It has a very wind-but mainly in the United States, where it procives two large tributaries, Clark's of the damage has been repaired. Pop. Fork and Snake River. Farther down it (1910) 181,511; (1920) 237,031.

turns abruptly to the west and forms the boundary between the States of Washing-ton and Oregon. It drains an area of 260,000 sq. miles; length, 1,400 miles.

Columbia University, an educa-tional institution in New York City, established in 1754, and giving courses in literature, sci-ence, medicine, law, etc. In 1920 the total number of students was 16,000; teachern, 950. Affiliated with it are Barnard Col-lege, Teachers' College, and the College of Pharmacy.

Columbian Exposition, an international exposition of arts, industries, manufac-tures, etc., held in Chicago from May 1 to October 30, 1893, in celebration of the 400th anniversary of the discovery of America by Columbus. The buildings were covered with a white coating which gave the appearance of marble and led to the exposition being given the name of the 'White City.' The amusements were grouped in the Midway Plaisance. Total attendance, 27,539,041; total receipts, 333.290,065; disbursements, \$31,117,353. Columbus. a, city, county seat of \$33,290,065; disbursements, \$31,117,353, Columbus, a city, county seat of Muscogee Co., Georgia, on the Alabama border, at the head of navi-gation on the Chattahoochee River. Seven lines of railroad radiate in all directions, and the river furnishes ample hydro-elec-tric power. It is the second cotton mill center in the South. Among the other leading articles of manufacture are iron

### Columbus

Eastern Asia separated from Europe by the Atlantic. While the Fortuguese were seeking to reach India by a southeast course around Africa he was convinced that there must be a shorter way by the west. He applied in vain to Genoa for assistance, and equally fruitless were his endeavors to interest John II of Portugal in the enterprise. He then determined to apply to the Spanish court; and after many disappointments he induced Fer-dinand and Isabella to equip and man three vessels for a voyage of discovery. It was early in the morning of Friday, on August 3, 1492, that Columbus set sail from the port of Palos, and after marrowly escaped failure. The variation of the needle so alarmed the crews that they were on the point of breaking out into open mutiny, and he was obliged to promise that he would turn back if three more days brought no discovery. On the third day (Oct, 12, 1492) the island of Guanahani or San Salvador was sighted, which Columbus believed to beof the needle so alarmed the crews that Hispaniola. His colony had now been they were on the point of breaking out removed from Isabella, according to his into open mutiny, and he was obliged orders, to the other side of the island, to promise that he would turn back if and a new fortress erected called St. three more days brought no discovery. Domingo. Columbus found the colony in On the third day (Oct, 12, 1492) the a state of confusion, but soon restored island of Guanahani or San Salvador was tranquillity. His enemies, in the mean-sighted, which Columbus believed to be-time, endeavored to convince his sove-long to Eastern Asia and to be connec-regins that his plan was to make him-ted with India—a belief which he carried self independent, and Columbus was not with him to his grave. Hence the mis-natives of America, and that of West Spain, even sent him to that country in

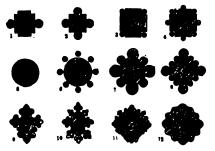
Columbus, a city, county seat of Bar-the White River, east branch, 41 miles and the State of Indianapolis. Like souther, threshing and sawmill machinery, toola, bis knees and kinsed the earth, free the and the souther region. It has cotton and hard wood lumbus, for the State Industrial Insti-tute is here. Pop. (1920) 10.501. Columbus, Platte Co., Nebraska, 92 miles w. by x. of Omaha. It has four the with, in menory of his preservation. Columbus, ish, Cristoforo Colom'o, which is a careful education. He appears to have navigated all parts of the Medi-terrators, and some of the const beyond the Straits of Gibraltar. In 1470 we for the traits of Gibraltar. In 1470 we for the queen, Isabella to souther way by the and there and for the colony. Mere he married the state or the traits of the Medi-and at Lisbon, where he married the for the traits of Gibraltar. In 1470 we for the queen, Isabella to souther way by the state or the traits of the fortugues were stated at Lisbon and selectors were week in the terprise. He the fortugues were stated at Lisbon in the comments be indued Fer-and there must be a short way by the state or the terprise. He the determined to the there preside in vain to Genea set on foot against him at home induced him to return to Spain, where his presence and probably also the treasure he brought silenced his enemies. In May, 1498, he sailed with six vessels on his third voyage. Three of his vessels he sent direct to Hispaniola; with the three others he took a more southerly direc-tion, and having discovered Trinidad and the continent of America, returned to Hispaniola. His colony had now been removed from Isabella, according to his according to his according to his of the island.

Columbus

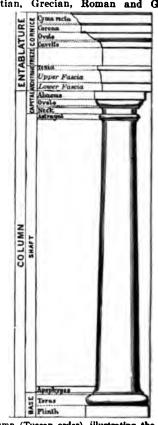
### Columella

chains. On his arrival (in 1500) orders were sent directing him to be set at lib-erty and inviting him to court, but for his were sent directing him to be set at lib-erty and inviting him to court, but for his injurious treatment he never got redress, though great promises were made. After some time he was able to set out on his fourth and last voyage (1502) in four slender vessels supplied by the court. In this expedition he was accompanied by his brother Bartolommeo and his son Fernando. He encountered every im-aginable disaster from storms and ship-wreck, and returned to Spain, sick and exhausted, in 1504. The death of the queen soon followed, and he urged in vain on Ferdinand the fulfillment of his promises; but after two years of illness, humiliations and despondency, Columbus died at Valladolid. His remains were transported, according to his will, to the city of St. Domingo, but on the cession of Hispaniola to the French they were removed in January, 1796, to the ca-thedral of Havana in Cuba. In 1899 they were removed, with much ceremony to Granada, Spain, though there is some question as to these being the correct remains. Columbia (kol-u-mel'a), LUCIUS JUremains.

remains. Columella (kol-u-mel'a), LUCIUS JU-NU'S MODERATUS, a Ro-man writer on agriculture; born at Cadiz in Spain; lived about the middle of the first century after Christ, and wrote twelve books, which are still extant, one of which, on gardening (De Re Rustica), is in verse. Column (kol'um; Latin, columna). pillar, a cylindrical solid body set up-right and primarily intended to support some superincumbent weight. A column has as its most essential portion a long



classical architecture columns have com-monly to support an entablature consist-ing of three divisions, the architrare, frieze and cornice, adorned with mold-ings, etc. The accompanying cut will illustrate these and other terms. Col-umns are distinguished by the names of the styles of architecture to which they belong; thus there are Hindu, Egyptian, Grecian, Roman and Gothie



Column (Tuscan order), illustrating applied to the several parts. the te

sections of Gothic Columns. 1-4, South Gothic. 5-12, North Gothic. solid body, called a *shaft*, set vertically on a *stylobate* or on a congeries of struction, of form, or of ornament, as moldings which forms its *base*, the shaft being surmounted by a more or less bulky mass which forms its *capital*. In the several parta columns. In classic architecture they are further distinguished by the name of the order to which they belong, as Doric. Ionic, Corinthian, Composite or Tuscan columns. They may also be characterised by some peculiarity of position, of con-attached, twisted, cabled, etc., columns.

### Column

have also been used, however, singly for various purposes, especially for monu-ments. See Coristikiss, Doric, Ionic, Gothio, etc. Column, in military tactics, a forma-deep files, showing a small front; as distinguished from line, which is ex-tended in front and thin in depth. They are said to be close or open, according to the intervals between the battalions, regiments, etc., of which they are com-posed. Nometimes the name column is given to the small army, especially when actively engaged.

Colure (ko-lūr'), in astronomy, one of two great circles which divide passes through the solstitial and the other through the equinoctial points of the column eclintic.

**Colymbus** (ko-lim'bus), the diver ge-nus of birds, giving name to the family Colymbidæ, which includes

to the family Colymbidæ, which includes also the Grebes. Colza Oil (kol'za), an oil much em-ployed for burning in lamps, and for many other purposes. It is expressed from the seeds of Brassica campestris oleifera, and from allied plants of the cabbage family. It is yellowisn brown, and has little or no smell. It becomes thick and solid only at very low temperatures.

12-3

of Mexico. They were excellent horse-men, and extremely warlike, but their numbers are now insignificant. Some of them have been collected on a reserva-tion in the western part of the former Indian Territory, now Oklahoma. **Comayagua** (kö-må-yä'gwå), a town of Central America, in Honduras, the capital of a department of y the same name, situated on the southern border of the plateau of Comayagua, about midway between the two oceans. It is a bishop's see and has a cathedral. Pop. about 8000. **Comb.** an instrument with teeth, made

Pop. about 8000, **Comb**, an instrument with teeth, made of tortoise-shell, ivory, horn, wood, bone, metal, or other material, used for dressing the hair, and by women for keeping the hair in its place when dressed. Combs have been used from the earliest times by rude as well as by civilized races.

civilized races. **Combaconum** (kom-ba-ko'num), s, presidency of Madras, district of Tan-jore. It was the ancient capital of the Chola dynasty, and is one of the most an-cient and sacred towns in the presidency. It has a great many well-endowed Hindu temples, a government college, courts, etc. A brisk trade is carried on with visitors and pilgrims. Pop. 59,623. **Combat**, TRIAL BY. See Battle, Wager

becomes thick and solid only at very low temperatures. Coma (kö'ma), in medicine, a state of from various diseases, as apoplexy; from narcotics, as opium; from accident or injury to the brain; or from excessive cold. When accompanied with delirium and the person's eyes are wide open, it is called coma cigil. Coma, the luminous, nebulous, hair-nucleus of a comet. Coma Bereni'ces, BERENICE'S HAR, ton of the northern hemisphere contain-ing about forty stars visible to the naked of Leo. Comacchio (ko-mark'ki-ō), a fortified of Leo. Comana (ko-mark'ki-ō), an America (in Sil), and A Treatise on the society of Writers to the law, and in 1812 was admitted a member of the Society of Writers to the law, and in 1812 was admitted a member of the society of Writers to the law, and in 1812 was admitted a member of the society of Writers to the law and in twisted Germany and America lecturing son his favorite science. He was also a zealous promoter of the cause of popular education and social progress; and was among the first to advocate compulsory education and the es

#### Combe

board of health. Besides the Constitution of Man, published in 1828, and which has had an enormous circulation, he is the author of A System of Phrenology (1825); Lectures on Popular Education (1853); Moral Philosophy (1840); The Life and Correspondence of his brother, Dr. Andrew Combe (1850); Principles of Griminal Legislation and Prison Disci-pline Investigated (1854); and the Re-lation between Science and Religion (1857). (1807).

Combe, WILLIAM. See Coombe, Wil-

**Combermere** (kom' ber- mēr.), SIB STAPLETON STAPLETON STAPLETON. VISCOUNT, AN English gen-eral, born in 1773; died in 1865. He en-tered the army in 1740, and took part in the Mysore war against Tippoo Saib in 1798 and 1799. He served with distinc-tion through the Peninsular war, and was commander of the allied cavalry af-ter 1810. In 1814 he was created Baron Combermere. In 1825 he was appointed commander-in-chief in India. He was latterly Constable of the Tower, and a field-marshal. field-marshal.

Combination. See Permutations and Combinations.

Combinations. Combinations. Combretacese (kom-bre-tä'se-ē), an order of shrubby or arborescent polypetalous exogens, tropical shrubs or trees, with leaves destitute of stipules, and long, slender stamens. Some of them are astringent and used for tan-ming (myrobolans), and the kernels of others are eatable. They are chiefly valued for their brightly-colored, showy flowers, especially in the genus Com-bretum bretum.

flowers, especially in the genus Com-brétum. Combustion (kom-bust'yun), the op-eration of fire on in-flammable substances; or the union of an inflammable substance with oxygen or some other supporter of combustion, at-tended with heat and in most instances with light. In consequence of the com-bination of the earbon in fuel with the oxygen of the air bring the universal method of getting heat and light, and as when the action takes place the tuel is said to burn or undergo combustion, the latter term has been extended to those cases in which other bodies than carbon —for example, phosphorus, sulphur, metals, etc.—burn in the air or in other substances than air—for example chlorine. Though the action between the gas and the more solid material, as coal, wood, charcoal, of whose combina-tion combustion is the result, is mutual, the one having as much to do with the process as the other, yet the former, as oxygen, chlorine, iodine, and the com-

pounds which they form with each other and with nitrogen, have received the name of supporters of combustion, while to the latter the term combustibles has been assigned.

to the latter the term combustibles has been assigned. Spontaneous Combustion is the igni-tion of a body by the internal develop-ment of heat without the application of fire. It not infrequently takes place among heaps of rags, wool and cotton when sodden with oil; hay and straw when damp or moistened with water; and coal in the bunkers of vessels. In the first case the oil rapidly combines with the oxygen of the air, this being accom-panied with great heat; in the second case the heat is produced by a kind of fermentation; in the third by the pyrites of the coal rapidly absorbing and com-bining with the oxygen of the air. The term is also applied to the extraordinary alleged phenomenon of the human body being reduced to ashes without the direct application of fire. It is said to have occurred in the aged and persons that were fat and hard drinkers; but most chemists reject the theory and altogether discredit it.

Comedietta (k o m-ē-di-et'a). a dra-matic composition of the

Comedicita (k o m-è-di-et'a), a dra-matic composition of the comedy class, but not so much elaborated. Comedy (kom'e-di), a dramatic com-position of a light and amus-ing class, its characters being repre-sented as in the circumstances or meet-ing with the incidents of ordinary life; distinguished from tragedy by its spright-liness, and the termination of its plot or intrigue being happy; and from farce by its greater refinement and moderation, and by more of probability and less of burlesque. See Drama. Comenius (kō-mā' n i-us). JOHANN AMOS, a Moravian educa-tional reformer, born in 1592; died in 1671. He was chosen bishop of the Mo-ravian Brethern, and suffered much in the persocutions of that body. He was the author of upwards of ninety works, the most important of which are Janus Lin-guarum Rescrata (1631) and Orbis Sen-sualium Rictus (1653). His high repu-tation brought him invitations from Eng-land, Sweden and Hungary to aid in organizing public instruction; and the above works have been frequently trans-lated and imitated.

above works have been irequently trans-lated and imitated. Comets (kom'ets), certain celestial bodies which appear at occa-sional intervals, moving through the heavens in paths which seem to cor-respond with parabolic curves, or in a few instances in elliptical orbits of great eccentricity. The former, after being visible from the earth for a shorter or

### Comets

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#### Comets

#### Comets

in 1910, but on this occasion had lost most of its brilliancy and was barely observable with the naked eye, much to the disappointment of those who had been

the disappointment of those who had been awaiting its return with expectations of a striking spectacle. The comet denominated Encke's comet, which has made repeated appearances, was first observed in 1818, and was identified with a comet observed in 1786, also with a comet discovered in 1785 by Miss Herschel in the constellation ('ygnus, and with another seen in 1805. Its orbit is an ellipse of comparatively small dimensions, wholly within the orbit of Jupiter; its period is 1260 days, or about three years and three-tenths. It has been frequently observed since. An-other eomet, the history of which is of the utmost importance in the latest theories regarding the connection of these has been frequently observed since. An-other comet, the history of which is of the utmost importance in the latest theories regarding the connection of these bodies and the periodic showers of shoot-ing-stars, is one known as Biela's comet, discovered in 1826. It revolved about the sun in about 6% years, and was identified as the same comet which was observed in 1772 and in 1806. Its re-turns were noted in 1832, 1839 and 1845. In 1846 it divided into two, returned double in 1852, but has not since been seen, the supposition being that it has been dissipated, and that it was repre-sented by a great shower of meteors that were seen in Nov. 1872. One of the most remarkable comets of recent times was that known as Donati's, discovered by Dr. Donati, of Florence, in 1858. It was very brilliant in the autumn of that year, and on October 18th was near coming into collision with Venus. The year 1884 was remarkable for the number of comets recorded. During that year no fewer than seven comets, including the well-known short-period comet Encke's were observed. The paths in which comets move are

50° to 80°, 39; and 80° to 90°, 8. The comets that have been observed have made their passages through very different parts of the solar system; 24 have passed within the orbit of Mercury, 47 within that of Venus, 58 within that of the Earth, 73 within that of Jupiter. Of a hundred or thereabouts, mentioned by Lalande, about one-half have moved from west to east, in the same direction as the planets, and the other half in the op-posite direction. The direct and ret-rograde ones do not appear to follow each other according to any law that has been discovered. From 1299 to 1582 all that are mentioned were retrograde; and five that were observed from 1771 to 1780 were all direct. That the comets are formed of matter of some sort or other we know from the planets upon them; but as their action upon the planets has not been great, or even perceptible, we are led to the con-clusion that they are not bodies of the same density or magnitude as even the same density of the planets. They are probably groups of meteoric masses, arying in size. One theory of the nature of comets is that these bodies were ejected millions of years ago from the in-terior of suns, or planets in a sunlike state. When a comet is viewed through a pears a dense nucleus in the center of the imminous and apparently vaporous matter of which the external parts are composed and the opacity of this nucleus varies in different comets. On its first appearance and again when it recedes, the luminous part of the comet is faint and does not ex-tend far from the nucleus; but as it moves on towards the perihelion the brightness increases, and the nucleus; but as it moves fewer than seven comets, including the part of the comet is laint and uses not ex-well-known short-period comet Encke's tend far from the nucleus; but as it moves were observed. The paths in which comets more are increases, and the luminous matter length-not, like those of the planets, all nearly in ens into a train, which, in some cases, the same plane as the orbit of the earth. has extended across a fourth of the but are inclined to that orbit at all an-entire circumference of the heaven. The gles. Leaving out the small planets that most remarkable discovery of recent times have recently been discovered, all the oth-regarding comets is the identity of the ers are contained within a zone extending only 7° on each side of the earth's orbit; certain showers of shooting stars. This and, with the exception of Mercury (by was first demonstrated by the Italian far the smallest of the old planets), they astronomer Schiaparelli, who proved the are within half that space. But the orbits agreement between the orbit of the star-shower of the comets are at all possible angles; comet of 1862 and that of the star-showers tribution in all directions round the sun that every meteoric stream follows in as a center. Taking all the orbits of the train of some comet large or small, which the inclinations have been ascer-which either exists now or has been dis-tained, it has been found that of every signated, as Biela's comet was. leaving hundred the inclinations are as follows; only its meteoric trail to show where from 0° to 30°, 20: 30° to 50°, 27; it once traveled; and that every comet is

### Comfrey

followed or preceded by a train of mete-ors, extending over a greater or less por-tion of the comet's orbit. Besides the very interesting Halley comet, which, true to the period assigned to it, re-appeared in 1910, the most im-portant recent comet appearances have wen that known as Pons-Brooks, which made its re-appearance in 1884 and has a periodicity of about seventy-one and one-half years, or about five years less than Halley's; the Westphal, which last ap-peared in 1913, with a period of slightly over sixty-one years; the Olbers, in 1887, its period being about seventy-two and one-half years. Those four are of what is called the Neptune 'family,' and describe elliptic orbits. Besides the Biela comet, whose re-appearance occurred last in 1852, but which has failed to appear according to the periodicity established, another comet, known as the Brorson, seems to have been lost. It last appeared in 1879 and has been looked for in vain since that year. It is suggested that in 1880 its or-bit intersected that of Denning II near the orbit of Jupiter and that it underwent such perturbation as materially to alter its orbit and period. Almost every year such perturbation as materially to alter such perturbation as materially to alter its orbit and period. Almost every year a number of short period comets are dis-covered. In April, 1916, Wolf discovered at Heidelberg a new comet with a periodi-city of nearly eight years; it reached its perhetion in June, 1917. Schaumasse's count is another short-horized count an

city of nearly eight years; it reached its perthetion in June, 1917. Schaumasse's comet is another short-period comet, ap-pearing every six years. It was observed in 1913, within 90,000,000 miles of Jupi-ter; again at the end of 1919 it ap-proached within 120,000,000 miles of the earth. See Donati's and Halley's Comets. **Comfrey** (com'fr6), a name given to attic plants of the genus Symphytum, nat, order Boraginaceae. The common com-frey, S. officindle, is found on the banks of rivers and ditches. Its root abounds in mucilage, which is useful in irritations of the throat, intestines and bladder. **Comiso** (kô-meš'sõ), a town of Sicily, province, Syracuse, 13 miles w. of Ragusa. Pop. 21,873. **Comita** (kô-meš'a), with the Ro-mans, the assemblies of the people in which such public business was transacted as the election of magistrates, the passing of huws, etc. These were of three kinds: (1) The comitia curiata, or assemblies of the patrician houses or populas in wards or curiar. (2) The comitia conturiata, or assemblies of the whole Roman people, in divisions called centuries. (3) The comitia tributa, or assemblies of the plebeian tribute only.

Comity of Nations (comitas gen-adopted in international law to denote that kind of courtesy by which the laws and institutions of one state or country are recognized and given effect to by the government of another. Comma (kom'a), in punctuation, the point [, ] denoting the short-est pause in reading, and separating a sentence into divisions or members ac-cording to the construction. —In music, a comma is the smallest enharmonic inter-val, being the difference between a major and a minor tone, and expressed by the ratio 80:81. Commander (kom-an'der), a chief;

ratio 80:81. **Commander** (kom-an'dèr), a chief; the officer of an army or any division of it. The office of com-mander-in-chief is the highest staff ap-pointment in the army. In foreign armies title is sometimes not commander-in-chief, but field-marshal commander-in-chief, the difference being that the former is ap-pointed by a letter of service, and holds office only during the pleasure of the sovereign. In the United States the Pres-ident is declared by the Constitution to be commander-in-chief of the army and navy. In the navy, a commander ranks a licucommander-in-chief of the army and navy. In the navy, a commander ranks a li-u-tenant. In matters of etiquette he ranks with a lieutenant-colonel in the army. Commandeering (kcm-an-dering), a term used by

**Commandeering** (kem-an-der'ing), a term used by the Boers in the British-Boer war to des-ignate the seizing of supplies, cattle, etc. **Commandery** (kom-an'de-ri), a term used in several senses in connection with some of the military and religious orders, as the Templars, Hospitalers, etc. In certain religious or-ders, as those of St. Bernard and St. Anthony, it was the district under the authority of a dignitary called a com-mander. mander.

# Commandments. See Decalogue.

Commencement (kom-ens'ment), in the universities and colleges of the United States, also in that of Cambridge, England, the day when bachelors and masters of arts and doctors receive their degrees.

Commendam (kom-en'dam), the ad-ministrative or provi-**COMMENCIAR** (acon-endam), the ad-ministrative or provi-sional management of a benefice during a vacancy. The person entrusted with the management was called *commendator*. The grant of ecclesinstical livings in this way gave rise to great abuses. In Eng-land the term was applied to a living re-tained by a bishop after he had ceased to be an encumbent. By 6 and 7 Wij-

Commendam

liam IV the holding of livings in com-mendam was, for the future, abolished. Commensal (kom-en'sal: L. con. and mensa, a table), a mess-mate; applied in zoology to animals who live on or in other animals for part or the whole of their life, simply sharing the food of their host without being parasitic on him: thus the pea-crabs live within the cavity of shellfish, and find their food in the water intro-duced for the benefit of their host. Commensurable (kom-en'sur-a-bl), an e.p.pellation given to such quantities or magnitudes as can be measured by one and the same common measure. Commensurable num-bers are such as can be measured or divided by some other number without any remainder; such are 12 and 18, as being measured by 6 or 3. Commentary (kom'en-tār-i', a term used (1) in the same sticular transactions or events, as the Commentaries of Cæsar. (2) A series or collection of comments or annotations. These may be in the form of detached notes or in a series of remarks written in connected form. Commentary (kom'en-tār-tē), a town

connected form.

These may be in the form of detached notes or in a series of remarks written in connected form. Commentry (kom-mäp-trö), a town lier, 8 miles 8. E. of Montluçon, in the midst of a vast coal-field, to which the town owes its prosperity. Pop. 7581. Commerce (kom'érs), the inter-chandise, or property of any kind be-tween countries or communities; trade; traffic. The commerce of the United States has grown greatly within recent years, reaching a total in the fiscal year 1910-11 of \$3,500,000,000. The exports exceeded the imports by \$530,000,000. The manufactured goods exported reached the high total of \$910,000,000. Commerce, DEFARTMENT OF, an ex-center of the United States government, created in Feb. 1903, as the Department of the United States government, created in Feb. 1903, as the Department of Labor in 1913 had charge of the labor interests. Its head official is a member of the President's Cabinet. Commerce, CHAMBER OF, a hoard merchants and traders of a city to protect the interests of commerce; to lay before the legislature the views of their mem-bers on matters affecting commerce; to formation advantages which could not be reached by private enterprise, etc. These

associations originated in France early in the eighteenth century. Nearly all large cities in the United States have cham-bers of commerce.

cities in the United States have cham-bers of commerce. Commercial Law (kom-ér'shal; or the law mer-chant), the law which regulates commer-cial affairs among the merchants of dif-ferent countries, or among merchants generally. It is derived from the dif-ferent maritime codes of mediæval Eu-rope, the imperial code of Rome, inter-national law, and the custom of mer-chants. Lord Mansfield (1704-93) was the first great exponent of commercial law in Britain. In this country the term is applied to that system of laws which refers to mercantile contracts, and is based upon the custom of merchant: The principal subjects embraced within it are the laws of shipping, including that of marine insurance; the law of negotiable bills of exchange and promis-sory notes; and the law of sales. Commercial Travelers, salesmen

sory notes; and the law of sales. Commercial Travelers, s a lesmen in the interest of trading houses or manufactories. Formerly merchants from smaller towns sought the large cities to make purchases, and do so yet to some extent, but competition in business has led to the custom of sending traveling agents to the smaller dealers to solicit their trade. 'Drummer' is the familiar name for these agents in the United States; 'bagman' or 'rider' in England. Commercial Treaties, treaties en-between two countries for the purpose of Commercial Treaties, treaties en-between two countries for the purpose of improving and extending their commer-cial relations; each country engaging to abolish, to reduce to an agreed rate or otherwise modify the duties on articles of production and manufacture imported from the one country into the other. They are usually for a limited period, but may be renewed and modified according to altering conditions. In these treaties the phrase, 'most favored nation.' implies concessions equal to the most favorable granted under any similar treaty. The first treaty of commerce made by England with any foreign nation was entered into with the Flemings in 1272: the second was with Portugal and Spain in 1308. A measure to establish reciprocity of trade between the United States and Canada was passed by the Congress of the United States in 1911, but was rejected by Can-ada. Treaties of like nature have been negotiated with most of the American and a number of the Euronean nations. Commercy (kom-ér-sē), a town of Erance, den, Meuse, og

Commercy (kom-ér-sa), a town of the Meuse, 21 miles E of Bar-le-Duc. Pop. (1906) 5622.

#### Commination

a diocese, or one entrusted with the per-formance of the duties in the bishop's absence. 2. In the army a term applied to officers charged with furnishing pro-visions, etc., for its use.

Com'missary-court, in Scotland, county court which decrees and confirms executors to deceased persons leaving per-sonal property in Scotland, and dis-charges relative incidental functions. din-

charges relative incidental functions. **Commission** (ko-mish'un), a formal act of trust; a warrant by which any trust is held or authority exercised.—A written document, invest-ing a person with an office or certain authority.—A certificate issued by author-ity by which a military officer is con-stituted; as, a captain's commission.—A body of persons joined in an office of trust, or their appointment; as, a build-ing commission.—Brokerage, allowance, or compensation made to a factor, agent, etc., for transacting the business of an-other; as one per cent. commission on sales.—Commission of bankruptcy, a com-mission appointed to investigate the facts relative to an alleged bankruptcy, and to secure all available assets and effects for the creditors concerned. the creditors concerned.

the creditors concerned. A commission merchant is one who sells goods on behalf of another, being paid by a certain percentage which is called his commission.—Putting a ship in commis-sion is fitting her out for service after she has been laid up.

# Commission, City Government

by, a method of municipal government and since applied originally in Galveston, and since applied successfully in New Orleans and many other American cities. Its purpose is to conduct the business affairs of cities on business principles and to do away with the system of political control and patronage. Usually five prominent business men of the city are elected as heads of the several municipal departments, and the manage-ment of affairs put under their care, the citizens retaining the right of recall of these officials from office if they prove incompetent or dishonest. The system, when fully tried, has proved desirable financially and otherwise. In 1912, 207 cities in 34 states had commissions. Commissioners of Highways. a method of municipal government by,

Commissioners of Highways,

seneral (commissary-general of subsist-cuce), two colonels, three lieutenant- officers having certain powers and duties colonels, eight majors and twelve cap-tains. Commissary (kom'i-sar-i).-1. As states they are county officers, and their an officer of a bishop who exercises ty. In others they are town or township spiritual jurisdiction in remote parts of officers. They have power to establish,

Commination (komination), an office in the liturgy of the Church of Hagiand, appointed to be read on Ash Wedneeday or on the first day c? Lent, containing a recital of God's anger and threatenings towards sinners. Commines, or Commens (ko-men), two towns, one on France, the other in Belgium, on opposite sides of the Lys, 8 miles N. of Lille. Anciently they formed a single town, which was fortified and had a castle, in which Philip de Commines was born. Pop. of French Commines, 8000; of Belgian Commines, (ko-men), PHILIPPE DE.

Commines, 6000. Commines (kö-mēn), PHILIPPE DE, man, born in 1445 at Commines; died in 1500. He became confidential adviser of Charles the Bold, Duke of Burgundy, but in 1472 he passed into the service of Louis XI, who loaded him with marks of favor. After the death of Charles the Bold Louis took possession of the duchy of Burgundy, sent Commines there, and favor. After the death of Charles the Bold Louis took possession of the duchy of Burgundy, sent Commines there, and soon after appointed him ambassador to Florence. He was afterwards sent by Louis to Savoy, for the purpose of seis-ing the young Duke Philibert, and of placing him entirely under the guardian-ship of the king, his uncle. In 1483 Louis XI died, and next year Commines attended Charles VIII in his invasion of Italy, and served him in a diplomatic capacity. Soon after that date he began to write his *Memoirs*, valuable as con-tributions to the history of his times. The first edition was published at Paris between 1523 and 1528. He relates in them the events which occurred during his life, and in most of which he had an active share, in lively, natural language, and displays everywhere a correct judg-ment, acute observation, and a profound knowledge of men and things. **Commissariat** (kom-i-sā'ri-at), the depart ment of an army whose duties consist in supplying transport, provisions, forage, camp equi-page, etc., to the troops: also, the body

army whose duties consist in supplying transport, provisions, forage, camp equi-page, etc., to the troops; also, the body of officers in that department. In the British army the commissariat and trans-port are under the Ordnance Store De-partment, with two commissaries-general and a number of deputy-commissaries-general, assistant commissaries-general, etc. In the United States army the Sub-sistence Department has one brigadier-general (commissary-general of subsist-cuce), two colonels, three lieutenant-colonels, eight majors and twelve cap-tains.

Commissioners of Highways

repair or vacate highways, and it is their duty to cause them to be kept in good order.

**Commissure** (kom'i-sūr), in anat-omy, a joining or union of two parts, as the sutures of the corpus callosum or great commissure of the brain.

corpus callosum or great commissure of the brain. Committee (kom-it'ë), one or more persons elected or ap-pointed to attend to any matter or busi-ness referred to them either by a legis-lative body, or by a court, or by any cor-poration, or by any society or collective body of men acting together. In Parlia-ment or Congress, when a committee con-sists of the whole members of the body acting in a different capacity from that which usually belongs to them it is called a committee of the whole house, the busi-ness of which is conducted under some-what different regulations from those under which the business of the house when not in committee is carried on. Familiar examples are committees of supply and committees of ways and means.—Standing committees are such as continue during the existence of the legislative body, and to these are com-mitted all matters that fall within the purposes of their appointment, as the committee of elections or of privileges, etc. —Nekect committees are appointed to con-sider and report on particular subjects.— mittee.

**Committee of Public Safety** (Comité du Salut Public), a body elected by the French Convention (April 6, 1793) from among its own members, at first having very limited powers con-ferred upon it—that of supervising the executive and of accelerating its actions. Subsequently, however, its powers be-came extended; all the executive author-ity passed into its hands, and the min-isters became merely its scribes. It was at first composed of nue, but was increased to twelve members, viz.; Robespierre, Danton, Coutbon, Saint-Just, Prieur, Robert-Lindet, Hérault de Séchelles, Jean-Bon Saint-André, Bar-rère, Carnot, Collot d'Herbois and Bil-laud Varennes. The secere government of this body is knowr as the Reign of Terror, which ended with the execution of Robespierre and his associates in July, 1794, During the commune (March to May, 1871), a similar com-mittee was established in Paris. Committee of Public Safety

Commodore (k o m' ō - d ō r), in the British navy, an officer, generally a captain, holding a tem-porary commission with a rank between that of captain and admiral, who com-mands a ship or detachment of ships in the absence of an admiral. They are of two kinds—one having a captain un-der him in the same ship, and the other without a captain. The former has the rank, pay, and allowance of a rear-admiral, the latter the pay and allow-ance as the admiralty may direct. They both carry distinguishing pennants. In the United States the title of commo-dore was occasionally given by courtesy to captains in the navy in former wars as in the case of Commodore Perry, but it was not made an official title until the time of the Civil war, and it was abol-ished again in 1900, all the commodores now recognized being those on the retired list. The title is also given by courtesy to the senior captain of a line of mer-chant vessels, and also to the president of a yachting club. Commodus (kom'o-dus), L. ZELTUS

Commodus (kom'o-dus), L. ÆLIUS AURELIUS, a Roman em-peror, son of Marcus Aurelius, was born in A.D. 161; killed in 192. He succeed-d his father in 180, and gave early proofs of his cruel and voluptuous character. Ile gave himself up to the lowest society and the most shameless habits. He used to fight in the circus like a gladiator, and caused himself to be worshiped as Her-cules. One of his concubines, whom he intended to put to death, administered poison to him; but it operated too slowly, and he was strangled by a favorite athlete. athlete.

### Common Carriers. See Carrier

Common Council, the council of a city or corpo-for the government of the citizens. The common councils sometimes consist of two

#### Commoner

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#### Commune

 communes. In either case each commune A remarkable member of the family was the division of the created at mayor.
 Commune of Paris. -1. A representation of the family of Paris in the French review which took the place of the most of the family of Paris in the French review of the one of the most of the family of the alternation of the Gramadian of the communes. In either case each commune is governed by an officer called a mayor. communes. In enter case each communes is governed by an officer called a mayor. Commune of Paris. —1. A rev-olution ary committee which took the place of the municipality of Paris in the French rev-olution of 1789, and soon usurped the supreme authority in the state. Among its chiefs were some of the most violent of the demagogues, such as Höbert, Danton and Robespierre, 2. The name adopted by the ultraradical party in Paris brought once more into prominence by the events of the Franco-German war, more immediately by the siege of Paris (Oct., 1870, to Jan., 1871). They ruled over Paris for a brief period after the evacuation of the German troops, and had to be suppressed by troops collected by the Natural Assembly of France. Much bloodshed and wanton destruction of property took place before the rising was put down by M. Thiers' govern-ment. Communion (ko-mur'yun), the act

A remarkable member of the family was the l'rincess Anna Comnena. See Asss

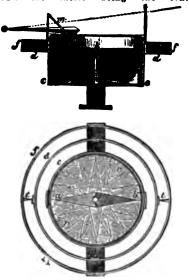


### **Comparative** Anatomy

responding to a troop of cavalry or a battery of artillery, consisting of from (40 to 100 men and commanded by a captain. Comparative Anatomy. See Anatomy. (k o m - pari-sun), De-

Comparison (k o m - p ar'i-sun), DE-ORTES OF, in grammar, inflections of adjectives or adverbs to ex-press degrees of the original quality, usu-ally divided into positive, comparativ-, and superlative; as strong, stronger, strongest, glorious, more glorious, most elorious, most glorious.

glorious. Compass (kum'pas), an instrument used to indicate the mag-netic meridian or the position of objects with respect to that meridian, and em-ployed especially on ships, and by sur-veyors and travelers. Its origin is un-known, but it is supposed to have been brought from China to Europe about the middle of the thirteenth century. As now generally used it consists of three parts: namely, the box, the card or fly, and the needle—the latter being the really



ceptacle hung within a wooden one by two concentric rings called gimbals, so fixed by the cross centers to the box that the inner one, or compass-box, shall re-tain a horizontal position in all motions



Compass Card.

remeriance of the consists of three parts is namely, the box, the card of the result is the The circular card is divided

#### Compass

#### Compasses

Compasses (kum'pa-ses), or PAIE OF Compasses (compasses, a mathemat-ical instrument used for the describing of circles, measuring lines, etc. They con-sist simply of two pointed legs, movable on a joint or pivot, and are used for measuring and transferring distances. For describing circles the lower end of one of the legs is removed and its place of the legs is removed and its place supplied by a holder for a pencil or pen. *Hair Compasses* are compasses having a spring tending to keep the legs apart, and a finely threaded screw by which the a spring tending to keep the legs apart, and a finely threaded screw by which the spring can be compressed or relaxed with the utmost nicety, and the distance of the legs regulated to a hair's breadth.— Bow Compusses are compasses having the two legs united by a bow passing through one of them, the distance between the legs being adjusted by means of a screw and nut.—Proportional Compasses are com-passes used for reducing or enlarging drawings, having the legs crossing so as to present a pair on each side of a com-mon pivot. By means of a slit in the legs, and the movable pivot, the relative distances between the points at the re-spective ends may be adjusted at pleasure in the required proportion. **Compass Plant** (S i p hium lacinia-tum), a composite plant growing in the prairies of the Mississippi Valley, and remarkable from the fact that its crect radical leaves stand so that their edges point almost exactly worth out of the uncellur in mideumore

so that their edges point almost exactly north and south, especially in midsummer. This is said to be due to the action of light, and to depend on the leaves having an equal number of stomata on either face.

face. **Compensation** (k o m - p c n-sä'shun), a balance-wheel or a pendulum so con-structed as to counteract the tendency of variations of temperature to produce variations in the rate of vibration or oscillation. This may be accomplished in various ways, as by bars formed of two or more metals of different expansi-bilities, so that the expansion of one counteracts the expansion of another. They are used to produce perfect equality of motion in the balances of watches and chronometers and the pendulums of clocks.

clocks. Compensation Laws. The first law for the com-pensation of workmen injured while in service was passed by Congress in 1908. This related to employees injured or killed while in government service, if not due to negligence or misconduct on the part of the workmen. In case of death, those dependent on the victim are to receive a sum equal to one year's wages of the deceased. In that of disability for a

period over 15 days a sum is paid equal to the wages for the period, this not to exceed one year. Since 1910 laws of this character have been passed in 32 States. These vary so much in their provisions that we can only speak of them gener-ally. The injury must not be due to carelessness or drunkenness on the part of the workman, and the payments shall bear a certain proportion to the rates of wages paid. The effect of such laws has been very useful. Devices to prevent injury by unprotected machinery have been introduced by employers, costly liti-gation has been avoided, and drunkenness on the part of employers costly liti-careae of railroad employment, where much depends on the carefulness of train movers, intoxication has become pro-hibited.

depends on the carefulness of train movers, intoxication has become pro-hibited. Complègne (kön-pe-ain), a French left bank of the Oise, 45 miles N. N. E. of Paris. It has a splendid chateau, built by St. Louis, rebuilt by Louis XIV. and improved by Louis XV, Louis XIV. and improved by Louis XV, Louis XVI. and mapoleon I. It was the autumn re-sort of the court of Napoleon III. In 1430 Joan of Arc was taken prisoner here by the English. Pop. 14,052. Complexion (k om-ple k'shun), the particularly of the face. The color de-pends partly on pigment in the deep cells of the epidermis and partly on the blood supply. The nature and color of the hair seem closely connected with the com-plexion, and these combined are impor-tant distinguishing marks of different races. See Ethnology. Compline (kom/plin), the last of the the Roman Catholic breviary; the com-plement of the Vespers or evening office. Compositæ (kom-posi-tě), the largest species of herbs or shrubs distributed all over the world. The flowers (generally called florets) are numerous (with few exceptions) and sessile, forming a close head on the dilated top of the receptacle: and surrounded by an involucre of whorled bracts. The flowers are momo-petalous, and the order is divided into three natural groups from the form of the corolla; (1) Tubulifora, in which it is suit or ligulate. The stamens are in-serted on the corolla, and their anthers are united into a tube (syngenesious). The style is two-cleft at the apex. The

#### Composite

fruit is dry and seed-like. The head of numerous florets was called by the older botanists a compound flower, hence the name. Many are common weeds, like the d a i s y, dandelion, thistie, etc.; many are cultivated in gardens, such as

gardens, such as the asters, mari-sold, etc.; others have some eco-nomic or medicinal value, as chicory, s-tichoke, chamoartichoke, chamo-mile, lettuce, mile, lettuce, wormwood, arnica, etc.

Composite

(kom'pos-it) Or-DER, in architecture the last of the five orders: so called because the capital belonging to it is composed out of



composed out of those of the other orders, borrowing a quarter-round from Composite Order. the Tuscan and Doric, a row of leaves from the Corinthian, and volutes from the Ionic. Its cornice has simple mo-dillions or dentils. It is called also the Roman or the Italic order.

Composition (kom-pô-zish'un). arrangement which arrangement which a bankrupt or person in pecuniary difficul-ties makes with his creditors, and by which he arranges to pay them a certain proportion only of the debts due. See Bankrupt.

Forces Composition of and

Motions, in mechanics, the union or assemblage of several forces or or motions that are oblique to one another into an equivalent force or motion in another direction. Thus two forces act-ing in the directions of the adjacent sides of a parallelogram compose one force acting in the direction of the diagonal, and if the lengths of the adjacent sides represent also the magnitudes of the forces, the diagonal will represent the magnitude of the compound force or resultant. resultant.

Compostella (kom - pos -tel'a). See Santiago-de-Compostella. See **Compostel'1a**, ORDER OF ST. JAMES ish knights formed in the twelfth century to protect the pilgrims who flocked in vast numbers to Santiago de - Compostella, numbers to Santiago - de - Compostella where the relics of St. James were kept.

### Compurgation

**Composts** (kom'posts), in agriculture are mixtures of various fertilising substances. See Manure.

fertilising substances. See Manure. Compound Animals, an i m a l a, which by no means belong to the lowest types, in which individuals, distinct as re-gards many of the functions of life, are yet connected by some part of their frame so as to form a united whole. Such are the polyzoa and some of the ascidia. Compounding (kom-pound'ing) or FELONY, the accept-ing of a consideration for forbearing to prosecute; or the agreeing to receive one's goods again from a thief on condition of not prosecuting. This is an offense pun-ishable by fine and imprisonment. Compressed Air (kom-prest'), at-mospheric air com-pressed by means of pumps, etc., and used

pressed by means of pumps, etc., and used in driving stationary and locomotive en-gines, and excavating machines; as also in working pneumatic despatch tubes, railin working pneumatic despatch tubes, rail-way brakes, etc. Large railroad tunnels have been excavated by the use of com-pressed air motors, such as Hoosac tun-nel and the Mount Cenis and others. **Compressibility** (kom-presi-bil'i-ti), the property of bodies in virtue of which they may be pressed into smaller bulk. All bodies are probably compressible, though the liquids

pressed into smaller bulk. All bodies are probably compressible, though the liquids are but slightly so. The gases are ex-ceedingly compressible, and may be liqui-fied by pressure and cold combined. Those bodies which occupy their former space when the pressure is removed are called aleatic elastic.

Compulsory Insurance, a term **Compulsory Insurance**, a term to any system of insurance enforced by a government for the benefit of its working classes. Compulsory insurance against accident has been in force for some time in Great Britain, Germany, Austria. France, Norway, Italy, and Holland. In the United States custom differs in the various states. In Germany there is a national and compulsory system of in-surance against sickness, accident and old age, for all those earning less than \$500 a year. In France there is a compulsory insurance against old age and invalidity. The year 1912 saw the establishment of a revolutionary system of insurance against sickness and unemployment in Great Britain. against sickne Great Britain.

Compurgation (kom-pur-gā'shun), a mode of defense al-lowed by the Anglo-Saxon law in Eng-land, and common to most of the Teutonic tribes. The accused was permitted to call a certain number (usually twelve) of mote, called compurgators who inited men, called compurgators, who joined

#### Comstock

the Big Bonanza and other mines, which have yielded gold and silver to the value of over \$300,000,000.

have yielded gold and silver to the value of over \$300,000,000. Comte (kont), ISIDORE AUGUSTE MARIE FRANÇOIS XAVIER, founder of the 'positive' system of philosophy, was born at Montpellier in 1798; died at Paris 1857. His family were zealous Catholics and royalists. He was edu-cated at the École Polytechnique, and embraced enthusiastically the socialist tenents of St. Simon. As one of his most distinguished pupils he was employed, in 1820, to draw up a formula of the doctrines professed by the St. Simo-nian school, which he accordingly accom-plished in his Système de Politique Po-sitive. This work did not, however, meet with the approbation of St. Simon, who asserted that Comte had made a very im-portant omission by overlooking the re-ligious or sentimental part of human nature. In 1826 Comte commenced a course of lectures on positive philosophy but only four lectures were given when he became deranged in mind, and did not recover till the end of 1827. In 1830 he commenced the publication of his Cours de Philosophie Positive, which was com-pleted in six volumes in 1842, and was freely translated into English and con-densed by Harriet Martineau (two vols. 1853). (See Positive Philosophy.) Comus (kô'mus), in the later Greek mythology, the god of revelry,

but only four lectures were given when he became deranged in mind, and did not recover till the end of 1827. In 1830 he commenced the publication of his Cours de Philosophie Positive, which was com-pleted in six volumes in 1842, and was freely translated into English and con-densed by Harriet Martineau (two vols. (See Positive Philosophy.) Comus (kô/mus), in the later Greek mythology, the god of revelry, feasting, and nocturnal entertainments, renerally represented as a drunken youth Milton's Comus is a creation of his own. Comyn (kom'in), JOHN, Lord of Badenoch, was one of the commissioners sent to confer about the marriage of the Maid of Norway to Prince Edward of England. On the competition for the Scotch throne in 1291 Comyn put in a claim as a descendant of Donald Bane. The date of his death is uncertain, but he was alive in 1299.—His son, JOHN (Coxtyn, called the 'Red ('omyn,' was chosen one of the three guardians of Scotland, and defented the English st Roslin in 1302. He submitted to Edward I in 1304, and was killed by st Roslin in 1302. He submitted to Edward I in 1304, and was killed by smaller size in Latin America.

being paid to the farmer in money or in labor. Concan (kon'kan), a maritime sub-presidency of Bombay. It consists of a long belt of sea-coast, stretching from north to south for about 220 miles, with an average breadth of 35 miles, and bounded on the east by the Western Ghauts. It includes the town and isl-and of Bombay. Area about 12,500 sq. miles; pop. 3,035,654. Concarneau (köp-kär-nö), a seaport, France, dep. Finistere, on an island in the bay of La Foret. Has sardine and pilchard fisheries; a zoölogical laboratory, connected with the college of France; is much visited by artists. Pop. 7887. Concave (kon'kāv), hollow and curved face of a spherical body. A surface is concave when straight lines drawn from point to point in it fall between the surface and the spectator; and conves when the surface comes between him and such lines. Concentration (kon-sen-trā'shun), in

# Conception

Conception (con-sep'shun), the act or power of conceiving in the mind; in philosophy, that mental act or combination of acts by which an absent object of perception is brought be-fore the mind by the imagination. Conception, IMMACULATE, in the Ro-the doctrine that the Virgin Mary was born without the stain of original sin. This doctrine came into favor in the twelfth century, when, however, it was opposed by St. Bernard, and it afterwards became a subject of vehement controversy between the Scotists, who supported, and the Thomists, who opposed it. In 1708 Clement XI appointed a festival to be celebrated throughout the church in honor of the immaculate conception. Since that time it was received in the Roman Church as an opinion, but not as an article of faith until the year 1854, when the pope issued a bull which makes the immaculate conception a point of faith. Conceptualism (in metaphysics, a doctrine in some sense intermediate be-tween realism and nominalism. Con-ceptualism assigns to universals an ex-istence which may be called logical or psychological, that is. independent of single objects, but dependent upon the mind of the thinking subject, in which they are as notions or conceptions. Concert (kon'sert, a public or private musical entertain ment, at which a number of vocalists or instru-mentalists, or both, perform singly or combined. Concertina (kon-serté'na), a musical instrument invented by

mencansus, or both, perform singly or combined. (kon-ser-té'na), a musical instrument invented by Professor Wheatstone, the principle of which is similar to that of the accordion. It is composed of a bellows, with two faces or ends, generally polygonal in shape, on which are placed the various stops or studs, by the action of which air is admitted to the free metallic reeds which produce the sounds. In the Eng-lish concertina the compass is three oc-taves and three notes. The German con-certina is an inferior instrument. **Concerto** (kon-cher'té). in music, a kind of composition, usually in a symphonic form, written for one principal instrument, with accompani-ments for a full orchestra. **Concert Pitch.** See Pitch. **Concession** (kon-sesh'un). a permis-

prises, such as mining, the construction of railways, canals, or the like, usually subject to fixed conditions and limitations. **Conch** (kongk), a marine shell, espe-cially a large spiral shell of a trumpet shape, and which may be blown as a trumpet, as in the practice in Hindustan and some of the Pacific islands.

Conchifera (kon-kif'é-ra), Lamarck's name for that large class

of acephalous molluscs which have shells consisting of two pieces, commonly known as bivalves (oyster, mussel, etc.). **Conchology** (kon-kol'orgi), the sci-ence of shells, that do-partment of zoölogy which treats of the nature, formation and classification of the shells with which the loadies of many mollusca are protected; or the word may be used also to include a knowledge of the animals themselves, in which case it is equivalent to malacology. In systems

be used also to include a knowledge of the animals themselves, in which case it is equivalent to malacology. In systems of conchology shells are usually divided into three orders, univalves, bivalves and multivalves, according to the num-ber of pieces of which they are composed. See Mollusca. **COnclave** (kon'klāv), the place where the cardinals assemble for the election of the pope; also the electoral assembly of the cardinals themselves, Pope Gregory X, whose election had been delayed for three years, established in the council at Lyons (1274) the regula-tions of the conclave. The cardinals are shut up together in a particular suite of apartments in the palace where the pontiff dies, and they are supposed to have no communication with the outside world during the period of the election. The companion, either lay or clerical, whom the cardinal is allowed to take with him into the conclave during the election of a pope is called a conclaviet. The office is one of great delicacy and trust. **Concord** (kon'kord). in music, the

trust. Concord (kon'kord), in music, the combination of two or more sounds pleasing to the ear. Concords are the octave, the fifth, third and sixth. The two first are called *perfect*, because as concords they are not liable to any alteration by sharps or flats. The two last are called *imperfect*, as being alter-shle. able.

principal instrument, with accompani-ments for a full orchestra. Concert Pitch. See Pitch. Concession (kon-sesh'un), a permis-sion conceded by a gov-ernment to a person or company to a large railroad center. It was the do certain things: specially applied to home of Emerson, Hawthorne, Thoreau, grants of land, of privileges or immuni-ties in connection with certain enter-

Concord

the scene of the first fight between the British and Americans in the Revolution, shortly after the firing on the militia at Lexington. 1 op. (1920) 6461. **Concord**, a city, the capital of New Merrimack Co., on the Merrimac River, 73 miles N. N. w. of Boston. It has interest-ing public edifices, and large manufac-tures, having water-power in abundance. Its products include cotton and woolen goods, wagons, machinery, and varions others. There are quarries of fine granite, which are extensively worked. Pop. (1920) 22,167. **Concord**, a city, county seat of Cabar-tures of cotton goods, towels, furniture, etc. The Scotia Seminary (colored) is here. Pop. (1920) 9903. **Concordance** (kon-kord'ans), a book works, as the Scriptures, Shakespere, Mil-ton, Tennyson, Homer, etc., are arranged alphabetically, and the book, chapter and

works, as the Scriptures, Shakespere, Mil-ton, Tennyson, Homer, etc., are arranged alphabetically, and the book, chapter and verse, or act, scene, line, or other sub-division in which each word occurs are noted; designed to assist an inquirer in finding any passage by means of any lead-ing word which he can recollect, or to show the character of the language and style of any writer. Some of the most approved concordances in English are those of the Bible by Cruden, Butter-tworth, Brown and Taylor. Of non-biblical concordances, that of Mary Cowden Clarke to Shakespere deserves especially to be mentioned.

especially to be mentioned. Concordat (kon-kor'dat), a conven-tion between the pope, as head of the Roman Catholic Church, and any secular government, for the set-tling of ecclesiastical relations. One of the most important of the earlier con-cordats, that of Worms, called also the *l'alirtine Concordat*, made in 1122, be-tween Pope Calixtus II and the Emperor Henry V. has been regarded as the fundamental law of the church in Ger-many. Another celebrated concordat was that agreed upon between Cardinal that agreed upon between Cardinal was foonsalvi, in the name of Pius VII, and Napoleon in July, 1801. By it the head of the state had the nomination of bishops of the state had the nomination of bishops without legal marriage. It was per-to the vacant sees; the clergy became sub-nitted among the ancient Hebrews and ject in temporal matters to the civil the Greeks without limitation; but among power: all immunities, ecclesiastical the Bomans in the case of unmarried men concubinage was limited by the Lex Julia in France, and even the regulations of the public worship and religious cere-nomies and the pastoral addresses of the clergy were placed under the control of the secular authorities. Most of these (kon-kur'-ent), the jurisdiction of differ-

provisions remain in France at the pres-ent day. Since the middle of the eight-eenth century concordats have generally been adverse to the power of the poper. **Concrete** (k on 'k rët), a technical term in logic, applied to an object as it exists in nature, invested with all its attributes, or to the notion of such an object. Concrete is opposite to abstract. The names of individuals are concrete: those of classes abstract of such an object. Convict a opposi-to abstract. The names of individuals are concrete; those of classes, abstract. A concrete name is a name which stands for a thing; an abstract name is a name which stands for the attribute of a thing. concrete name is a name which stands for a thing; an abstract name is a name which stands for the attribute of a thing.
 Con'crete, a composition used in hydraulic or other mortar mixed with gravel or stone chippings about the size of a nut. It is used extensively in building under water, for example, to form the bottom of any structures raised in the sea; and it is also frequently used to make a bed for asphalt pavements, or the foundation of any structures raised in the sea; and it is also frequently used to make a bed for asphalt pavements, or the foundations for buildings of any kind. It has also come extensively into use as the material with which the walls of houses are built, the concrete being firmly rammed into molds of the requisite shape, and then allowed to set. In large buildings a material known as reinforced concrete has come into use, the reinforcement consisting of strong steel rods around which the concrete is poured and which add very greatly to its strength. Many very large building material is rapidly growing.
 Concretions (kon-kré'shuns), Monshar which about the solids as in those cavities destined to contain fluids. They are usually named according to the parts of the body in which they occur, as princal, salivary, pancreatic, hepseic, swimonary, urinary concretions, etc. Their composition is equally various, but the most common constituents are phoephates, urates, or other salts, in combination with mucus, albumen, fibrin, and other organic matter. See Calculus.
 Concubinage (kon-kh'bi-haj), sexual constituents are phoephates, walleng the ancient Hebrews and the Romans in the case of unmarried men concubinage was limited by the Lex Julia and Lex Papia Poppea to a single concubinage was limited by the Lex Julia and Lex Papia Poppea to a single concubinage was limited by the Lex Julia and Lex Papia Poppea to a single concubinage was limited by the Lex Julia and Lex Papia Poppea to a single concubinage was limited by the Lex Julia and Lex Pap



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Condé (kön-dä), town and fortress of France, dep. Nord, at the con-fluence of the Hayne and Scheldt. It gave their title to the Condé family. Pop. (1980) 2701.—For another Condé see ('ondé-sur-Noireau. Condé, LoUis DE BOURBON, founder killed after battle of Jarnac, 1569. See Bourbon.

Condé, of the house of, born in 1530; killed after battle of Jarnac, 1569. See *Bourbon.* Condé, Louis de Boursbon, PRINCE of general, born in 1621. In 1641 he mar-ried a nicce of Cardinal Richelleu. His defeat of the Spanish at Rocroi, in 1643, was followed. in 1645, by his defeat of Mercy at Nordlingen, and by his capture of Dunkirk in 1646, the year in which he inherited his father's title. During the troubles of the Fronde he at first took the side of the court; but believing him-self to be ill requited by Mazarin he put himself at the head of the faction of the *Petits Maitres*, and was imprisoned for a year by Mazarin (1650). On his re-lease he at once put himself at the head of a new Fronde, entered upon negotia-tions with Spain, and, his attact of Paris being indecisive, retired Netherlands, where he was monori-nate at Valenciennes in 1655. In this capacity he unsuccessfully believed Arras in 1657. In 1658 he feated before Dunkirk by Turne, he was restored to his rank in France after the peace of 1659. In 1668 he accom-plished the reduction of Franche Comté in three weeks; and in 1674 he defeated the Prince of Orange at Senef. His successes 13-3

13-3

ent courts authorized to take cognisance over Montecuculi in Alsace in 1675 closed of the same kind of case. In criminal case has the right of prevention, that is, of deciding upon that case exclusive of any courts which but for that right uon, a term applied to certain injuries of though unattended with fracture of the skull. Stupor or insensibility, sickness, more or less risk of serious inflammation of the brain setting in. Condamine, CHARLES MARIE DE LA. Condé (kön-dā), town and fortress of france, dep. Nord, at the con-fuence of the Hayne and Scheldt. It sist flight to Gheat. On his return he was appointed president of a bureau of the chamber of peers, but soon after re-tired to Chantilly. He died at Paris in 1818. Condensation (kon-den-ad'shun), in chemistry and phys-

**Condensation** (kon-den-sd'shun), in chemistry and phys-ics, the act of reducing a gas or vapor to a liquid or solid form. Surface con-densation, a mode of condensing steam by bringing it in contact with cold metal-lic surfaces in place of by injecting cold water. water

water. **Condensed Milk** (kon-denst'), milk preserved by evap-orating part of its moisture, mixing with refined powdered sugar, and packing in air-tight cans hermetically sealed; the sugar may also be omitted. **Condenser** (kon-den'ser), a syringe by into a receiver. Also a vessel in which aqueous or other vapors are condensed by cooling into the liquid form. **Condenser** Sea and Engine

Condensing Steam-Engine. See Stram-engine

See Steam-engine. Condé-sur-Noireau (kon-dā-sūr-nwā-rö), a form of France den. Calvados, at the **Condé-sur-Noireau** (Kon-d-sur-nwä-rö), a town of France, dep. Calvados, at the confluence of the Noireau and Drouance. Chief manufacture, cotton. Pop. 5709. **Condillao** (kôp-dê-yâk), ÉTIENNE **Condillao** (kôp-

Condillac

#### Conditional Immortality

in 1755 his Traité des Animaux, a criticism on Buffon. The sagacity and clearness of his writings led to his ap-pointment as tutor to the nephew of Louis XV, the infant Duke of Parma. for whom he wrote in 1755 his Cours d'Etudes, including a grammar, an Art d'Etrire, an Art de Raisonner, an Art d'Etrire, and a general history. His work Le Commerce et le Gouvernment appeared in the same year as the Wealth of Nations (1776), and was no unworthy companion to it. In 1768 he was elected to the Academy. He died shortly after the publication of his Logic in 1780, his Langue des Calculs being published postb'imously in 1798. Conditional Immortality (con-

postbumously in 1798. Conditional Immortality (con-dish<sup>2</sup> un-al), a doctrine held by certain relig-ious sects, which hold that immortality is dependent upon certain conditions of be-lief and conduct, and replace the tenet of future punishment by that of annihila-tion. This doctrine has been advanced at intervals from ancient times, and in our day it has many advocates.

Conditioned and Uncondi-

Conditioned and Uncondi-tioned, in philosophy, terms intro-duced by Sir William Hamil-ton. The Unconditioned is regarded by Sir William Hamilton as a genus includ-ing two species: the Infinite, or the un-conditionally unlimited, and the Absolute or the unconditionally limited; and the thesis which he maintains and expounds, and which forms one of the leading doc-trices of his philosophical system, is that the Unconditioned, as thus explained, is entirely unthinkable. The mind is con-fined, in point of knowledge though not of faith, to the limited and conditioned— the Conditioned being the mean between two unconditionates, mutually exclusive and equally inconceivable, but of which, on the principles of contradiction and ex-cluded middle. one must be admitted as necessary. Thus infinite space is incon-ceivable by us, while at the same time it is equally impossible to us to conceive of space as finite: yet one of these must be admitted necessary, and our conception is in some sense a mean between the in-conceivables. The doctrine was applied by Mansel to determine the limits of re-ligious thought. Condom (kon-dön), a town of S. w. France, dep. Gers, on a tioned, in philosophy, terms intro-tor. The Unconditioned is regarded by Sr William Hamilton as a genus includ-ing two species: the Infinite, or the un-conditionally unimited, and the Absolute or the unconditionally limited : and the thesis which he maintains and expounds, and which forms one of the leading doc-trines of his philosophical system, is that the Unconditioned. as thus explained, is entirely unthinkable. The mind is con-tioned, in point of knowledge though not of faith, to the limited and conditioned— two unconditionates, mutually exclusive and equally inconceivable, but of which, on the principles of contradiction and ex-cuded middle, one must be admitted as necessary. Thus infinite space is incon-critable by us, while at the same time is same sense a mean between the is in some sense a mean between the same is nome sense a mean between the is in some sense a mean between the imits of re-tritions thought.
 Condom (kon-dōn, a town of 8. W. Profileme des Trois Points appeared, both haw, forgiveness of in-pointed perpetual secretary (1773). In

Condorcet

jury. In an action for divorce on the ground of adultery it is a legal plea in defense.

defense. **Condor** (kon'dor; Spanish name, from Peruvian cuntur), a South American bird, the *Barcorhamphus gry-phus*, one of the largest of the Vulturides or vulturine birds. In its essential fea-tures it resembles the common vultures, differing from them mainly in the large cartilaginous caruncle which surmounts its beak, and in the large size of its oval and longitudinal nostrils placed almost at the extremity of the cere. Despite the many stories of its gigantic proportions.



Condor (Sarcorhamphus gryphus).



### Condottieri

Condottieri TTT his Theory of Comste gained the prise offered by the Academy of Berlin; the enriched the Transactions of many intrade societies; and took an active part in the Encyclopidie. During the troubles of the first Brench revolution his sym-pathies were strongly engaged on the side of the people. By the city of Paris he was elected deputy to the legislative as-sembly, of which he was soon appointed secretary, and in February, 1792, presi-dent. On the trial of Louis he was in favor of the severest sentence not capital; at the same time he proposed to abolish capital punishments, except in case of rrimes against the state. The fall of the Girondist party, May 81, 1798, prevented the constitution which Condorcet had drawn up from being accepted, and as he freely criticised the constitution which took its place he was denounced as being an accomplice of Brivsot. Madame Ver-ney, a woman of noble feelings, secreted him for eight months, during which he wrote his Esquisse d'un Tablesy Histo-rique des Proprès de l'Esprit Humsin. Lest he should endanger her safety, how-ever, he left the house secretly in opposi-tion to her wishes, fled from Paris, and wandered about till arrested and thrown into prison, where. March 28, 1794, he was found dead on the floor, having ap-parently swallowed poison. Condottieri (k on - d o t-te-a're), an Italian name given to the captains of those bands of mercenary soldiers who, in the fourteenth and fif-teenth centuries, hirred themselves out to carry on the petty wars of the Italian of Provence, was the first to give definite organization to a lawless band of this kind, and many of them attained a con-siderable size and power. One of the most noted was the company of Sforza Attendolo, whose son made himself Duke of Milan. For the most part, these mer-cenaries were good solders and splend-idly equipped, but rapacious and cruel to all but their own class. Conduction. See Heat. Conduction (kon-duk'tur), or Light-

cally connected with thick strips of cop-per which are carried into the ground to a considerable depth and terminated, if possible, in water or in wet earth. Vari-ous other forms of conductors have been introduced, such as are shown in the ac-company of the stript companying cut, where a is a conductor



Lightning

s b a Various forms of Roda. c d f. Various forms of Tips. g A i, Various forms of Attach-

ments. consisting of metallic strips joined to-gether, b a conductor of copper wires in-tertwined with iron rods, e a conductor consisting of a metallic strip forming a tube with spiral flanges. Various kinds of tips are also in use, as will be seen in the cut, d being formed of several metals enclosed the one within the other, the most fusible being outside; g, h, i show how in some cases successive sections of rods are connected.

**Conduit** (kon'dit), a line of pipes or an underground channel of some kind for the conveyance of water,

some kind for the conveyance of water, electric wires, etc. **Condyle** (kon'dil; Gr. kondylos), in anatomy, a protuberance on the end of a bone serving to form an articulation with another bone; more especially applied to the prominence of the occipital bone for articulation with the spine.

niderable size and power. One of the the occipital bone for articulation with most noted was the company of Sforsa Attendolo, whose son made himself Duke of Milan. For the most part, these mer-cenaries were good soldiers and splend-idly equipped, but rapacious and cruel to all but their own class. **Conduction.** See *Heat.* **Conductor** (kon-duk'tur), or LIGHT-strument by means of which either the electricity of the clouds, the cause of lightning, is conducted without explosion into the earth, or the lightning itself and the right angle. A sides that contain the right angle. A stout iron rod with one or more points at the top, the lower end being metalli-the solid figure traced out is a cone. a stout iron rod with one or more points at the top, the lower end being metalli-

the scene of the first fight between the British and Americans in the Revolution, shortly after the firing on the militia at Lexington. 1 op. (1920) 6461. **Concord**, a city, the capital of New Merrimack Co., on the Merrimae River, 73 miles N. N. W. of Boston. It has interest-ing public edifices, and large manufac-tures, having water-power in abundance. Its products include cotton and woolen goods, wagons, machinery, and various others. There are quarries of fine granite, which are extensively worked. Pop. (1920) 22,167.

which are extensively worked. Pop. (1920) 22.167. Concord, a city, county seat of Cabar-rus Co., North Carolina, 21 miles N. E. of Charlotte. Has manufac-tures of cotton goods, towels, furniture, etc. The Scotia Seminary (colored) is here. Pop. (1920) 9903. Concordance (kon-kord'ans), a book in which the principal words used in any work or number of works, as the Scriptures. Shakespere, Mil-ton, Tennyson, Homer, etc., are arranged alphabetically, and the book, chapter and verse, or act, scene, line, or other sub-division in which each word occurs are noted; designed to assist an inquirer in finding any passage by means of any lead-ing word which he can recollect, or to show the character of the language and style of any writer. Some of the most approved concordances in English are those of the Bible by Cruden, Butter-worth, Brown and Taylor. Of non-biblical concordances, that of Mary Cowden Clarke to Shakespere deserves especially to be mentioned. Concordat (kon-kor'dat), a conven-

especially to be mentioned. Concordat (kon-kor'dat), a conven-tion between the pope, as head of the Roman ('atholic Church, and any secular government, for the set-tling of ecclesiastical relations. One of the most important of the earlier con-cordats, that of Worms, called also the *l'alistine Concordat*, made in 1122, be-tween Pope Calixtus II and the Emperor Henry V, has been regarded as the fundamental law of the church in Ger-many. Another celebrated concordat was that agreed upon between Cardinal that agreed upon between Cardinal Consalvi, in the name of Pius VII, and Napoleon in July, 1801. By it the head of the state had the nomination of bishops of the state had the nomination of bishops without legal marriage. It was per-to the vacant sees; the clergy became sub-mitted among the ancient Hebrews and ject in temporal matters to the civil the Greeks without limitation; but among power: all immunities, ecclesiastical the Romans in the case of unmarried men courts, and jurisdictions were abolished concubinage was limited by the Lex Julia in France, and even the regulations of the bublic worship and religious cere-monies and the pastoral addresses of the clergy were placed under the control of the secular authorities. Most of these

provisions remain in France at the pres-ent day. Since the middle of the eight-eenth century concordats have generally been adverse to the power of the poper. **Concrete** (k on k r ët), a technical term in logic, applied to an object as it exists in nature, invested with all its attributes, or to the notion of such an object. Concrete is opposite to abstract. The names of individuals are concrete : those of classes abstract of such an object contribution of the second struct. The names of individuals are concrete; those of classes, abstract. A concrete name is a name which stands for a thing; an abstract name is a name which stands for the attribute of a thing. concrete name is a name which stands for a thing; an abstract name is a name which stands for the attribute of a thing.
 Con'crete, a composition used in hydraulic or other mortar mixed with gravel or stone chippings about the size of a nut. It is used extensively in building under water, for example, to form the bottom of a canal or sluice, or the foundation of any structures raised in the sea; and it is also frequently used to make a bed for asphalt pavements, or to form foundations for buildings of any kind. It has also come extensively into use as the material with which the walk of houses are built, the concrete being tirmly rammed into molds of the requisite shape, and then allowed to set. In large buildings a material known as reinforced concrete has come into use. The reinforcement consisting of strong steel rods around which the concrete is poured and which add very greatly to its strength. Many very large building material is rapidly growing.
 Concretions (kon-kré'shuns). Momenter and the use of concrete as a building material is rapidly growing.
 Concretions (kon-kré'shuns). Momenter and the body in which they occur, as princal, salivary, pancreatic, Aepestic, selmonary, urinary concretions, etc. Their composition is equally various, but the most common constituents are phoephates, urates, or other salts, in combination with mucus, albumen, fibrin, and other organic matter. See Celculus.
 Concurrent Jurisdiction (kon-ku'-ent), the jurisdiction of different parts of use and the use of constituents are phoephates in the case of unmarried men concubinage (kon-ku'bi-nāj) serual

## Confession of Augsburg

persons confess their sins. The confes-sional is often not unlike a sentry-box, the priest sitting within and the penitent The confes-



Confessional, Cathedral of St. Gudule, Brussels. kneeling without and speaking through an kneeting without and speaking through an aperture. Many confessionals are in three divisions or compartments, the cen-ter, which is for the reception of the priest, being closed half-way up by a dwarf door, and having a seat within it. The side compartments, which communi-cate with the center by grated apertures, are for the penitents are for the penitents.

See. Confession of Augsburg. Augeburg Confession.

burg Confession. Confession of Faith, a statement of religious beliefs, a kind of elaborate creed. (See *Creed.*) What is most distinctively known by this name is the document pre-pared by the Assembly of Divines which met at Westminster in obedience to an ordinance of Parliament issued June 12. 1643. The whole number of the assembly amounted to 174 members, mostly Puri-tans, thirty-two being members of Par-liament. There were also six Scottish commissioners appointed to consult and deliberate, but not to vote. One of the chief results of the deliberations was the framing of the Confession of Faith, which, on the return of the Scottish commis-sioners, was adopted by the Assembly of the Church of Scotland, August 27, 1647. Confidential Communication, Confidential Communication,

in law, a communication made by one in law, a communication made by one person to another which the latter cannot be compelled to give in evidence as a witness. Generally all communications made between a client and his agent, be-tween the agent and the counsel in a suit, or between the several parties to a suit, are treated as confidential. The privilege of confidentiality does not extend to dis-closures made to a medical adviser, and

Confucius

in England it has been decided also that confessions made to a priest are not to be treated as confidential.

be treated as confidential. **Confirmation** (kon-fér-mű'shun), the ceremony of laying on of hands by a bishop in the admission of haptized persons to the enjoyment of ('hristian privileges, the person confirmed then taking upon himself the baptismal vows made in his name. It is practised in the Greek, Roman Catholic, Lutheran and English churches: the other Protes-tant churches a public composition of faith before the first communion takes the place of the rite. Confirmation is one of the seven sacraments of the Roman Catholic seven sacraments of the Roman Catholic Church.

**Confiscation** (kon-fis-kā'shun). the act of condemning as forfeited, and adjudging to the public treasury, the goods of a criminal in part punishment of a crime.

**Conformable** (k on - f or'ma-bl), in geology, lying in par-allel or nearly parallel planes, and having the same dip and changes of dip:



Conformable Strata a and b, Unconformable at c.

said of strata, the opposite term from unconformable.

said of strata, the opposite term from unconformable. Confucius (kon-fush'yus), or KONG-FU-TNE (signifying, 'the teacher, Kong'), the famous Chinese sage, born about 550 B.C. in the province of Shantung, then belonging in part to the small vassal kingdom of Lu. His father, Shuhliang-heih, who was of royal descent, died three years later, and the boy was reared in comparative poverty by his mother. Chingtsai. At the age of seven-teen he was made inspector of corn-markets, at nincteen he married, and after about four years of domesticity, in which a son and two daughters were born him, he commenced his career as a teacher. In 517 B.C. he was induced by two mem-bers of one of the principal houses in Lu, who had joined his band of disciples, to visit the capital with them, where he had interviews with Lao-tze, the founder of Taouism. Though temporarily driven from Lu to Tsi by a revolution, he soon returned thither with an increasing fol-lowing, and at the age of fifty-two was made chief magistrate of the city of Chung-too. So striking a reformation was effected by him that he was chosen

### Congé d'Elire

Conge d Entre for higher posts, became minister of crime, and with the aid of two powerful disciples elevated the state of Lu to a leading posi-tion in the vingdom. Its marquis, how-ever, soon after gave himself up to debauchery, and Confuciuus became a wanderer in many states for thirteen years. In 483 he returned to Lu, but would not take office. The deaths of his favorite disciples Yen Hwin and Tze-lu in 481 and 478 dig much to bring about his own, which to bring about his own, which the place in the latter year. Confus left no work detailing his moral and bocial system, but the five canonical books of Confucianism are the Yih-king, the Shu-king, the Shi-king, the Le-king and the Chun-tsien, with which are grouped the 'Four Books.' by disciples of Confucius, the Ta-héo or 'Great Study,' the Chung-Yung or 'Invariable Mean,' the Hi-tse, written by Meng-tse or Mencius. The teaching of Confucius has had, and still has, an immense influence in China, though he can hardly be said to have founded either a religion or a philosophy. All his teachings was devoted to practical morality and to the duties of man in this world in relation to his fellowmen; in it was summed up the wisdom acquired by his own insight and experience, and that derived from the teaching of the sages of antiquity. It is doubtful if he had any real belief in a personal god. personal god.

Congé d'Elire (kön-zhā dā-lēr), the Norman French for 'leave to elect,' designates the sovereign's ' leave to elect.' designates the sovereign's license authorizing the dean and chapter of a vacant see in England to proceed with a new election. Though nominally choosing their bishop, yet the dean and chapter are bound to elect, within a certain time, such person as the crown shall recommend, otherwise they incur the penalties of a pramunize. **Conger-eel** (kong'ger), a genus of marine eels characterized by a long dorsal fin beginning near the

periods of development of the human body, each of which renders some particular organ unusually active; dis-cased conditions; and the accidental exer-tions of certain organs. Again, if the current of blood to one organ is checked the blood tends to accumulate in another; and the vessels which bring back the blood to the heart—that is, the veins— are sometimes obstructed, as by external pressure, by tumors, etc. Congestion sometimes lasts a short time only; but if not early cured, and its return, which would otherwise be frequent, prevented, it is only the beginning of other diseases. Sometimes it terminates in bleeding, which is a remedy for it; sometimes it increases into inflammation; sometimes it becomes a chronic disease, that is, the blood accumulates for a long time and expands the veins, the expansion becomes permanent, and dropsy may result. **Congleton** (kong'l-tun), a market shire, in a deep valley on the Dane, 22 miles s. of Manchester. It has cotton and silk manufactures, the latter forming the principal industry. Pop. (1911) 11.310. **Conglomerate** (k on -glom'er-ät), a term applied by ge-

ologists to rocks consisting mostly of water-worn pebbles connected together by a matrix of siliceous, calcareous, or other cement, often called also *plum-pudding* stone.

stone. Congo (kon'gö), formerly ZAIRE, one of the great rivers of the world, in Southern Africa, having its embouchure in the South Atlantic. The mouth of the river was known to the Portuguese in 1485, but the lower part of its course was first explored by an English expedition under Captain Tuckey, which, in 1816, ascended it for about 172 miles. In 18867, however, Livingstone discovered a con-siderable river called the Chamberi, rising in the Chibalé Hills, and having followed it to Lake Bangweolo traced it thence as the Luapula to Lake Moero, and thence again as the Lualaba to Nyangwe. From this point its exploration was taken up in **Conger-eel** (konk ker), a kenus of in the Chine rink, and having tohower marine eels characterized it to Lake Bangweolo traced it theree as by a long dorsal fin beginning near the the Luapula to Lake Moero, and theree nape of the neck, immediately above the again as the Lualaba to Nyangwe. From origin of the pectoral fins, and by having this point its exploration was taken up in the upper jaw longer than the lower. 1876-77 by Stanley, who proved its The best-known member of this genus is identity with the Congo. It carries more the Conger rulgāris, sometimes as thick water to the ocean than the Mississipti, as a mar's thigh, frequently attaining a its volume being next to that of the length of 10 feet and more than 100 hs. Amazon. Its total length is perhaps in weight. It is pale brown above, gray-3000 miles. Its chief tributaries are the ish white below, with whitsh dorsal and Aruwimi and the Mobangi from the right, anal fins fringed with black. Its flesh is eaten, but is somewhat coarse. **Congestion** (kon-isst'vun), in medi-ters of immense rivers from the south cine signifies an excessive such as the Kassai, the Kwango, etc. It accumulation of blood in an organ, which is navigable for about 110 miles from its thereby becomes disordered. Among the mouth, after which the navigation is in-causes of congestion are the different terrupted by cataracts. See next article.

### Congo

Congo, Belgian, formerly CONGO the river Congo, in South Central Africa, the river Congo, in South Central Africa, stretching by a kind of narrow neck of territory to the river's mouth, but ex-panding inland so as to cover an immense area, mainly lying south of the river. The obvious advantages of the Congo as a waterway in opening up the continent led to the formation at Brussels in 1878 of a Comité d'Études du Haut Congo, under the patronage of Leopold II, hav-ing as its aim the internationalization and development of the Congo area. Under its auspices Stanley returned in 1879 (see preceding article) to open up the river and form a free state under Eu-ropean auspices. He established a first station at Vivi, the limit of maritime navigation, 110 miles above the mouth of the river, constructed roads past the Yel-lala and Livingstone cataracts, and hauled steamers up to the higher reaches of the navigation at 10, the more the mouth of gregationalism denies that there is any the river, constructed roads past the Yel. Suthout it is about the same strength of the S2 the station of Level of the same strength of the S2 the station of Level of the same strength of the S2 the station of Level of the same strength of the S2 the station of Level of the same strength of the S2 the station of Level of the same strength of the S2 the station of Level of the same strength of the S2 the station of Level of the same strength of the S2 the station of Level of the station to the station of Level of the station to the state of the station of Level of the state of the station of the state st

of the natives in the collection of rubber led in the early twentieth century to in-dignant protests from travelers and oth-ers, and in 1908 King Leopold transferred the control of the state to the Belgian government. Various reforms have since been authorized. Area estimated at 920,-000 sq. miles; pop. 8,000,000 to 15,000,-000.

000 sq. miles; pop. 8,000,000 to 10,000, 000. Congregationalists (k o n-g r e-g å'-shun-al-ists), or INDEPENDENTS. The distinctive prin-ciple of Congregational polity is that every congregation is entitled 'to elect its own officers, to manage all its own affairs, and to stand independent of, and irre-sponsible to, all authority, saving that only of the Supreme and Divine Head of the Church, the Lord Jesus Christ.' Con-gregationalism denies that there is any authority in Scripture for uniting the churches of a nation or province into one corporation to be ruled by bishops, supe-rior to the pastors of particular congre-gations, or by a presbytery or synod. This is it which distinguishes Congrega-tionalism from Episcopacy and from Presbytery. As early as the days of Queen Elizabeth Independents, or Brown-ists, as they were also named after Robert Browne, were numerous, and punishments of banishment and even death were in-flicted upon some. Finally, large numbers of them retired to Holland and to Amer-ica. By the Act of Uniformity in 1662 the Independents were subjected to much suffering. The Revolution of 1688, and the passing of the Toleration Act in 1089, brought them relief. Efforts were made about this time to bring about an accom-modation between them and the English Presbyterians, but with little result. In 1730 certain Presbyterians, Baptists, and Independents formed themselves into a united body, under the name of the Three Denominations. The Independents are the largest dissenting body in England except the Wesleyan Methodists. The history of American Congregation-alism in its early years is practically that of the origin of New England, beginning with the arrival in 1620 of the first group of Puritans. In 1643 the four congrega-tional colonies of Plymouth. Massechu-setts Bay, Connecticut and New Haven formed a confederacy. In 1635 they founded Harvard Cellege to provide train-ing for their ministers, and ten years later missionary work was begun among the Indans. In 1914 there were in the Congregationalists (kon-gre-ga'-shun-al-ists),

Congress

#### **Congressional Apportionment**

two houses—a Senate and a House of Representatives. The Senate consists of 96 members elected by the people, two from each state for a period of six years, one-third of whom are elected every two years. The Representatives in the lower years. The Representatives in the lower house are elected by the people of the house are elected by the people of the several states every two years, and their number varies in each state in proportion to the population as determined by the decennial census. The united body of senators and representatives for the two years during which the representatives hold their seats is called one Congress. See United States.

#### Congressional Apportionment,

the number of people appointed by act of the number of people appointed by act of Congress to be represented by one Rep-resentative in Congress. The number fixed in the Constitution was 30,000 with the provision that each State should have at least one Representative. This num-ber was increased at each successive census, in order that the membership of the House should not become unwieldily large. The successive ratios since the formation of the government have been as follows: 1780-1782 haved on the Constituton 1780-1792 haved on the Constituton

1789-1792	based on	the Constitut	on	30,000
1792-1803	based on	Census of	1790,	33,000
1803-1813	••	••	1800,	33,000
1813-1823	••	••	1810,	35,000
1823-1833	••		1820.	40,000
1833-1843	••	••	1830	47,700
1843-1853	••	"	1840	70,680
1853-1863	••	••	1850.	93,420
1863-1873	••	••	1860	127,381
1873-1883	••	**	1870.	131,625
1883-1893	••	**	1880.	151,912
1893-1903	••	••	1890.	173,901
1903-1913	••	**	1900.	194,182
1913-1923	••	••	1910,	211,877

The change under the 1910 census in-creases the membership of the House from 386 to 435, Arizona and New Mexico, which were admitted in 1912, each being given one Representative.

given one Representative. **Congressional Library** (kong-greah-un-al), the library of the United States (ongress, established in 1800. It now numbers nearly two million books and pamphlets, exclusive of maps, charts, pho-tographs, etc. Copies of every work pub-lished and copyrighted in the United States must be sent to it, and it contains large numbers of duplicates. In 1897 it was removed from the Capitol to a mag-nificent building erected for it in the vicinity.

Conia

Conia Congreve (kon'grëv), Witliak, an 1670, educated at Kilkenny, and at Trinity College, Dublin, from which he entered the Middle Temple, London. A novel entitled the Incognita, under the pseudonym of Cleophil, was followed, at the age of twenty-one, by his comedy of the Old Bachelor, the success of which procured for him the patronage of Lord Halifax, who made him a commissioner for licensing backney-coaches; soon after gave him a place in the pipe office; and finally conferred on him a very lucrative place in the customs. He afterwards re-ceived an additional sinecure in the ap-pointment of secretary to the island of Jamaica. His next play, the Double Dealer, was less successful; his third comedy, Love for Love, and his tragedy The Mourning Bride (1679). were both popular; but after the cold reception of his Way of the World in 1700. he ceased altogether to write for the stage. He, however, continued to write occasional verses on public subjects; and in 1710 published a collection of his plays and poems, which he dedicated to his early and party he remained attached in all fortunes. He died in 1729. His plays belong to the artificial school of comedy, which airred rather at the production of a sustained flow of wit than at the pre-rise delineation of character. Congreve, Sis William, inventor of hard, from which he retired in 1816 with the rank of lieutenant-colonel of artillery and entered the House of Commons. He after, from which he retired in 1816 with the rank of lieutenant-colonel of artillery and entered the House of Commons. He after, from which he retired in 1816 with the rank of lieutenant-colonel of artillery and entered the House of Commons. He after, and wrote treatises on the mounting of naval ordnance and on the hydro-pneumatic lock. He died at Tou-louse in 1828. Congreve Rocket. See Rocket. Conj, or CU'NEO (kö'n-5), a town of

Congreve Rocket. See Rocket.

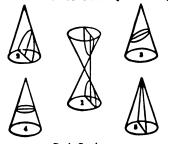
Congress, established in 1800. It now Congreve Kocket. See Rocket. numbers nearly two million books and pamphlets, exclusive of maps, charts, pho-tographs, etc. Copies of every work pub-lished and copyrighted in the United States must be sent to it, and it contains large numbers of duplicates. In 1807 it was removed from the Capitol to a mag-nificent building erected for it in the vicinity. Congressman-at-large, a m em-United States House of Representatives United States House of Representatives who is elected by the voters of a whole state instead of by districts. Congressman-at-large, a mether of the state instead of by districts. Conia, Conii alkaloid, the active



# **Conic Sections**

poisonous principle of Conium maculatum (spotted hemlock), nat. order Umbelli-ferm. It exists in all parts of the plant, but especially in the not quite ripe seed. When pure it is a colorless, oily liquid, specific gravity 0.878, changing by ex-posure to air to a brown fluid, and ulti-mately to a resinous, bitter mass, insolu-ble in water but soluble in alcohol, and when purified yielding a jelly with a butyric odor. It has a nauseous taste and very disagreeable odor, sharp and choking when strong, but in small quan-tity like the odor of mice. It is exceed-ingly poisonous, appearing to cause death by inducing paralysis of the muscles used in respiration. It is antispasmodic and relaxant. relaxant.

relatant. Conic Sections (kon'ik), three curves, the hyper-bola, the parabola, and the ellipse, so called because they are formed by the intersection of the surface of a cone with planes that cut the cone in various di-rections. If the cutting-plane be parallel to the axis the curve formed is the to the axis the curve formed is the hyperbola (1); if parallel to the slope of the cone the curve is a parabola (2);



#### Conic Sections

Conic Sections. If passing through both sides of the cone obliquely the section is an ellipse (3). A section perpendicular to the axis of the cone forms a circle (4), which may also be considered one of the come sec-tions. A perpendicular plane through the apex gives a triangle (5). Conidia (kon-id'i-a), in botany, the simple, dustlike, asexual re-productive cells produced on some lichens and fungi, as in the potato-blight. Coniferæ (kô-nif'e-rô), the pines, firs, and their allies, a natural order of gymnospermous exogens, the

Conjeveram

**Conjeveram** leaves, which are spread out, not folded, and generally grouped in such a manner as to form a cone composed of a greater or smaller number of these leaves, of which only a portion may be fertile and bear ovules. The disposition of the ovules in relation to these scales permits of a division of the Coniferze into three dis-tinct familles or tribes. In the *Cupress*, etc., the cones are formed of simple scales, each of which bears towards the base of its superior surface the ovules erect and sessile. The second family, *Abietiner*, has, in place of simple scales, scales actually double or formed of two parts: the lower one usually designated the bract: the other bearing at its base the ovules reversed. This family includes the pines, firs and larches, the arau-carias, wellingtonias, dammaras, etc. In these two families the ovules are com-pletely covered by the scales which con-stitute the third family, the scales are short, imperfect, and partly sterile, and neither cover the ovules at the period of fecundation nor at that of maturation. The ovules are usually set in the same manner as in the *Cupressiner*. The family. The Coniferm are found in larze forests in the north of Europe and America, and are of great innortance as timber trees. They abound also in resinous juices and yield turpentine, are usually alternate, and awl or needle shaped, the naked flowers are monorcious or diaccious, the male flowers being in decidnous catkins, the female in cones. **Coniine** (kö'nf-in). See Conia. Coniine (ko'nI-in). See Conia.

Conirostres (kö-ni-ros'trös), in or-nithology, a subdivision of the order Insessores or Passeres, con-sisting of genera having a stout, conical beak. The best-known genera are the larks, tits, finches, sparrows, gold-finches, linnets, bullfinches, crossbills, starlings, crows and birds of paradise. Conium (kö-ni'um), a genus of umbel-liferous plants. See Hemlock.

productive cells produced on some lichens Confirm liferous plants. See Hemlock. and fungi, as in the potato-blight. Coniferæ (kö-nif'e-rc), the pines, firs, Conjeveram (kon-ie-ver-um'), a town of Hindustan, presiden-and their allies, a natural ev of Madras, district of Chingleput. order of gymnospermous exogens, the It stands in a valley, is irregularly built, essential character of which consists in and from 5 to 6 miles long. It possesses the manner in which the ovules, not en-two famous parodas dedicated to Vishnu action of the pollen without the inter-vention of a stigma. The ovules in these South' has been sometimes given to it plants are borne on scales or modified Cottons are manufactured in the town,

#### Conjugal Rights

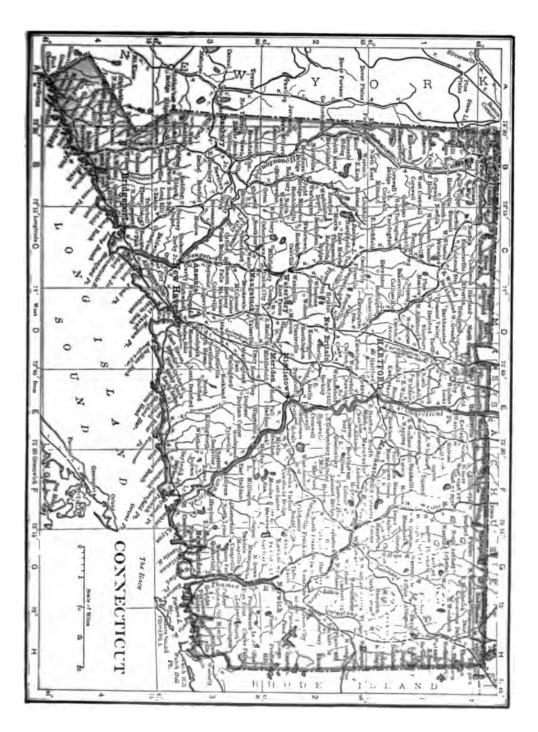
to the principal sentence.

to the principal sentence. **Conjunction**, in astronomy, the po-sition of two of the heavenly bodies, such as two planets, or the sun and a planet, when they have the same longitude (are in the same direction from the earth). When it is simply said that a planet is in conjunction, con-junction with the sun is to be understood. *Superior* conjunction and *inferior* con-junction are terms used of the planets whose orbits are nearer to the sun than that of the earth, according as the sun is between us and them or they between us and the sun. **Conjunctiva** (kon-junk-ti'va). the

in which there is a large Free Church of an English statesman, the third son of Scotland mission school. Pop. 40,164. Queen Victoria, born in 1850. He was Conjugal Rights (kon'jö-gal), in trained in the Royal Military Academy, law, the right Woolwich, and received his commission in which husband and wife have to each 1868. His promotion was rapid. In 1879 other's society, comfort and affection. Conjunction (kon'junk'shun), in Prussia. In 1905 he was made personal grammar a connective aide-de-camp to Edward VII, and in 1910 indeclinable particle serving to unite opened the first parliament of the Union words, sentences, or clauses of a sentence, of South Africa. In 1911 he succeeded and indicating their relation to one an-enter. They are classifiable into two ada. The democracy of his régime gave main groups: (1) Coördinating conjunc-tions, joining independent propositions, and subdivisible into copulative, disjunc-tive, adversative and illative conjunc-tions. (2) Subordinating conjunctions, a good harbor and is a big ore port. There linking a dependent or modifying clause are manufactures of iron, leather, tim-to the principal sentence.

ada. The democracy of his régime gave him wide popularity. Conneaut (kon-e.at'), a town of Ash-tabula Co., Ohio, on Lake Erie, 68 miles N. E. of Cleveland. It has a good harbor and is a big ore port. There are manufactures of iron, leather, tin-plate, etc. Pop. (1920) 9343. Connecticut (kon-net'i-kut), a river of New England, the west branch of which forms by treaty the boundary between the United States and Canada to lat. 45° N. It rises on the north border of New Hampshire; forms the boundary between Vermont and New Hampshire, passes through the west part of Massachusetts and the central part of Connecticut, and falls into Long Island Sound. It is navigable for vessels draw-ing from 8 to 10 feet for about 300 miles from its mouth, subsidiary canals, how-ever, being required above Hartford; total length, 450 miles.

is between us and them or they between us and the sun. Conjunctiva (kon-junk-ti'va), the total length, 450 miles. Conjunctiva (kon-junk-ti'va), the total length, 450 miles. Weer, being required above Hartford; total length, 450 miles. Connecticut, one of the thirteen which lines the inner surface of the eye. Conkling (konk'ling), Roscor, haw-leader, born at Albany, New York, 1829; about 72 miles; area, 4900 sq. miles. It died in Utica in 1888. He was in Con-contains several distinct ranges of hills, perses 1550-63 and 1865-67, and United but none of them have any great elera-States Senator 1867-81, when he angrily tion. Its principal river is the Connecti-resigned on account of disagreement with political appointments to office. Connaught (kon'nat), the smallest the sum harbors. Its mineral resources are to deter sources of building-stone. The soil is in general west coast is much broken up by nu-of building-stone. The soil is in general merous bays and inlets, and is thickly better suited for grazing than tillage, studded with islands. The contral parts abounding in fine meadows. But where are comparatively level and of linestone are comparatively level and of linestone are comparatively level and of linestone agriculture is pratiesed there are ample formation, while the surrounding and crops of hay, tobacco, corn, rye, wheat, picturespine mountains are formed of oats, barley, potatoes, etc.; and fruits, and generally, it is the least fertile of and scherty, better suited for grazing than tillage, standstone, clay-slate, granite and quartz, particularly apples, fluethy apples, fluethy of woolen, cor-all the provinces. It is divided into five counties Galway, Mayo, Roscommon, picturespine mountains are formed of articularly apples, fluethy of woolen, cor-all the provinces. It is divided into five counties Galway, Mayo, Roscommon, particularly apples, consist of agricultural counties Galway, Mayo, Roscommon, pictures, sewing machines, soep, cna-connaught, ARTHUR W



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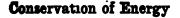
# **Connellsville**

produce and manufactures. The foreign commerce is nearly all carried on through New York and Boston, but there is a considerable coasting trade, and a large amount of tonnage engaged in the cod-fisheries. Fish-culture has received spe-cial attention, many millions of shad ova and young salmon having been intro-duced into the rivers. The number of miles of railway in operation is over 1000. The chief educational institution is Yale College, one of the most cele-brated in the States. Connecticut is divided into eight counties: the seat of government is Hartford. The State at first consisted of two colonies—Connecti-cut, with its seat of government at Hart-ford; and New Haven, with capital of same name. Connectut was settled in 1633 by emigrants from M.sachusetts, Hartford was settled by English in 1635, the Dutch having previously built a fort there. The colony of New Haven was settled by English in 1638, and the two colonies were united under the name of Connecticut, in 1662. Pop. (1900) 908-420; (1910) 1,114,750; (1920) 1,380,631. **Connellsville** (kon'els-vil), a city of Fayette Co., Penneyl-vania, 37 miles s. E. of Pittsburgh. Its production of coke is the largest in the Naited States; also has manufactures of brated in the States. Connecticut is the set of property on land is called booty; and cap-government is Hartford. The State at the on the high seas is called booty; and cap-ture on the high seas is called booty; and cap-ture on the high seas is called booty; and cap-ture on the high seas is called booty; and cap-ture on the high seas is called booty; and cap-ture on the high seas is called booty; and cap-ture on the high seas is called booty; and cap-ture on the high seas is called booty; and cap-ture on the high seas is called booty; and cap-ture on the high seas is called booty; and cap-many (911-018); died be-send seatures of the sanchusetts, and Magyars, and he was constantly at the Dutch having previously built a fort the States of the sand the sand the states of the sand the sand the sand the sand the trans. Thus the sand the sand the sand the sand the trans the the sand the sand

escaped to Cyprus, and afterwards joined the Persians against the Spartans, being appointed to the command of a Persian fleet in 307. In 304, with Pharnabazus he defeated the Spartan admiral, Pisander of Unidus, and in 303 returned to Athens to restore the walls and fortifications. **Conquest** (kongkwest), the act of white is defined as the forcible acquisition of enemy territory or the territory so ac-quired. Immovable property taken from the enemy is called conguest; movable property on land is called booty; and cap-ture on the high seas is called prize. Pil-lage is unauthorized plundering. **Conrad I** (kon'rad), King of Ger

## Consanguinity

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according to a fundamental principle in law, he is answerable if he could have avoided them. The same law applies to railways and corporations generally, as determined in numerous cases.

Conservation of Energy. See En-ergy. Conservation of Natural Re-

**Conservation of Natural Re-sources.** The great and heedless waste treasures of the United States, especially the forests, has led within recent years to a concerted action for their conservation for the benefit of future generations. The first national movement in this direc-tion was made by President Roosevelt in 1008, when he called a convention of State governors to consider what could be done for the preservation of our great natural wealth. The result of this move-ment was the formation of a National Conservation Commission, under the chairmanship of Gifford Pinchot, chief-forester, to take measures for this pur-pose. In December, 1008, Canada and Mexico were invited to take part in the movement, and in February, 1909, letters were sont to 45 nations, inviting their concurrence with the idea of calling a World Conservation Conference to con-sider in what way the vast natural re-sources of the world could best be con-served for man's benefit. Steps for the preservation and judicious handling of the American forests had previously been taken, by the withdrawal of public forest served for man's benefit. Steps for the tories were originally benevolent establish-preservation and judicious handling of the ments attached to hospitals, or other char-American forests had previously been itable or religious institutions. In Naples taken, by the withdrawal of public forest there were formerly three conservatories areas from exploitation and their con-for boys; in Venice four for girls; wersion into national forests, the total the Neapolitan group being reduced in area thus withdrawn to July 1, 1914, 1818 to a single establishment under being 185,321,202 acres. A Bureau of the name Royal College of Music. In Forestry was created in 1905, having for these great wooded reserves, 1808. In Frame the musical school At present these forests yield an annual established in connection with the Opera timber crop worth on the ground about received its final organization in 1795 \$10,000,000, and furnish forage for cat-their yielding value is increasing instead of diminishing. In addition are State forests, aggregating several millions of sohn, is perhaps the most influential in acres, yielding a profitable lumber supply and conserving the headwaters of many schools have pressed closely upon it. streams. These waters are being largely Institutions of the same description exist utilized in the West, by the building of formerly arid and barren soils. Conser-vation has also been extended to streams yielding water-nower, which have been yielding water-nower, which have been and ratande as government proper-vation and retained as government proper-vation and retained as government proper-vielding be-large. Similar steps have been taken in ing frequently attached to a mansion. regard to the great area of coal lands in The principles of their construction are

Conservatory

the western government domain, includ-ing the attentive coal beds discovered in Alaska. These have been withdrawn from private use, with the expectation that they can be handled in a way to yield a large income to the government and thus be made a source of national aggrandizement. In 1910 President Taft withdrew from settlement, under an act of Congress of that year, 43,568,896 acres of public lands, of which 35,073,-164 were coal sites (not including the coal lands withdrawn in Alaska), the others petroleum, phosphate and water-power sites. While these may be re-opened to settlement, it will be with the provision that the ownership of settlers will be confined to the surface, the min-eral deposits underground being reserved for national use. **Conservatives** (k o n-serva-tive), in

Conservatives (k o n-ser'va-tivs), in British politics the party that substantially corresponds to what used to be the Tory party, taking the opposite side to the *Liberals*. The name came into use about the time of the passing of the Reform Act of 1832 and is often used as implying greater enlight-enment or liberality than *Tory*. **Conservatory** (k o n-serva-to-ri), **a** European continent to a systematic

Conservatory (k o n-serva-to-ri), a name given on the European continent to a systematic school of musical instruction. Conserva-tories were originally benevolent establish-ments attached to hospitals, or other char-itable or religious institutions. In Naples there were formerly three conservatories for boys; in Venice four for girls; the Neapolitan group being reduced in 1818 to a single establishment under the name Royal College of Music. In Milan a conservatory was established in 1808. In Frame the musical school established in connection with the Opera received its final organization in 1795 under the name of Conservatories do musique. Among its teachers have been Méhul, Cherubini, Grétry, Boieldicu, etc. The Conservatorium, founded at Leipzig in 1842 under the auspices of Mendels-sohn, is perhaps the most influential in Germany, though of late years other schools have pressed closely upon it. Institutions of the same description exist in Warsaw, Prague, Munich, Berlin and Vienna, and the term has been adopted in the United Etates and the British do-minions.

#### Conserve

in all respects the same as for the green-house, with the single difference that the plants are in the free soil, and grow from the floor instead of being in pots placed on shelves or stages. This distinc-tion, however, is often disregarded, 'con-servatory' being restricted to the private hothense. hothouse.

form is preserves. See Preservation of Foods.

Foods. Conshohocken (kon-shō-hok'en), a ery Co., Pennsylvania, on Schuylkill. River, 13 miles N. w. of Philadelphia. It has steel mills, rubber works, woolen and cotton mills, foundries, stone quarries, glass works, etc. Pop. (1920) 8481. Consideration (kon-sid-èr-à'shun), in substantial ground which induces a party to enter into a contract; the equivalent for something given, done, or suffered. It I may be either expressed or implied, that is, where justice requires it and the law implies it. Consignment (kon-sin'ment), a mer-

implies it. Consignment (kon-sin'ment), a mer-cantile term which means either the sending of goods to a factor or agent for sale, or the goods so sent. The term is chiefly used in relation to foreign trade. The receivers of con-signments have usually to keep magazines and stores, for the use of which their consigning agency often compare fa-vorably with the occasionally larger but much less safe profits of original ven-tures. The consigning trade is protected by special laws. In most countries a consigner can claim his goods and collect all outstanding debts for goods sold on his account by a consignee who has sus-pended payment.

his account by a consignee who has sus-pended payment. **Consistory** (kon'sis-tor-i), the high-est council of state in the papal government. The name is also applied to the court of every diocesan bishop, held in their cathedral churches for the trial of ecclesiastical causes aris-ing within the diocese. In the English Church the consistory is held by the bishop's chancellor or commissary and by archdeacons and their officials either in the cathedral church or other convenient place in the diocese. (It., lit. 'the

of most of the subsequent compilations of maritime laws.

Console (kon'sōl), in architecture, a projecting ornament or brack-et having for its contour generally a curve of contrary flexure. It is em-



Cornice supported by Consoles, A A.

Cornice supported by Consoles, A.A. ployed to support a cornice, bust, vase, or the like, but is frequently used merely as an ornament. Consols (kon'solz), or CONSOLIDATED ANNUITIES, a public stock forming the greater portion of the na-tional debt of Great Britain. It was formed in 1751 by an act consolidating several separate stocks bearing interest at 3 per cent, into one general stock. At the period when the consolidation took place the principal of the funds united amounted to f9,137,821; but through the addition of other loans it has increased so much that now, after considerable reductions, it still amounts to more than half of the national debt. The interest of about f5,000,000 is payable in Dublin, that of the remainder in London. Consonance (kon'sō-nans), in music an agreeable accord of sounds, such as the third, fifth, and oc-tave. See Concord.

pended payment. Consistory (kon'sis-tor-i), the high-tave. See Concord. Consonant (kon'sō-nant; L. con, the papal government. The name is also applied to the court of every diocesan bishop, held in their cathedral churches aris-for the trial of ecclesiastical causes aris-ing within the diocese. In the English when united with a vowel, serving merely church the consistery is held by the bishop's chancellor or commissary and by archdeacons and their officials either in ta. In uttering a consonant there is place in the diocese. Consolato del Mare (It., lit, 'the the sen'), an ancient code of maritime haw and trading customs of various taba and trading customs of various taba, supposed to be a compliation of the with which they traded, as Barcelona, demeanor, and punishable hy imprisor-Marseilles, etc. It has formed the basis

# Constable

by a combination between several persons to carry into effect any purpose injurious either to individuals, particular classes, or the community at large. When the conspiracy leads to any overt act of an unlawful kind, the offense becomes felony. Constable (kun'sta-bl; Fr. connetable; Lat. comes stabuid, 'count of the stable'), an officer of high rank in several of the me-disval monarchies. Among the Franks, after the mejor domus, or mayor of the palace, had become king, the comes atab-wid became the first dignitary of the crown, commander-in-chief of the armies, and highest judge in military affairs The connetable, however, acquired so much power that Louis XIII in 1627 abolished the office entirely. Napoleon re-stabilished it, but it vanished with his downfall. In England the office of lord high constable was created by William the Conqueror, and became hereditary in two different families, as annexed to the earldom of Hereford. After the at-tainder of Stafford, however, lord high constables were appointed only to offici-ate on special occasions. The office of lord high constable of Scotland, expressly reserved in the treaty of union, is hered-itary in the noble family of Errol. In the common modern acceptation of the term constables are police officers in twoms. counties, etc., having as their duties the repression of felonies, the keeping of the peace, the execution of legal warrants, etc. In case of special disturbance a certain number of private citizens may be sworn in as special con-stables. In the United States a consta-ble is usually the acting bailing of a jus-tice of the peace, serving writs, execu-ing judgments, making distraints, etc. **Constable**, lisher, born in 1774; died in 1827. He was the original publisher of the *Edinburgh Review* and of Scott's novels, and his failure in 1826 involved Scott heavily, the life of the famous nov-elist being given through a streruous ef-fort to meet the claims of creditors. **Constable**, HENRY, a poet of the Eliz-devcated at Cambridge. His scher by a combination between several persons

**Constable**, HENRY, a poet of the Eliz-educated at Cambridge. His chief work was his book of sonnets, *Diana*, published in 1592, when few sonnets in the Italian form had been written. He was probably the author also of the Forest of Fancy (1579), attributed to Chettle. Suspected of treason against Elizabeth, he was comon his return in 1601 was confined in the Tower for three years. Date of his death is unknown.

 Constable, Sort, an English lands, the was employed in the business of prears, but entered as a student of the first father, a wealthy miller, for sort provented is a student of the local transmission as an associate of the Academy in 1700. It was not till the succeeded in the succeeded in the succeeded in the courter student of the local transmission as an associate of the Academy in 1800. In 1819 his former, brom this period his reputation widely estended itself, both over Britain and the courter student of the Academy in 1800. In 1819 his reputation as an associate of the Academy in 1800. The second of the Academy in the continent, and for some of his frames. He dided in 1837. His careful of the Academy in the continent is the second of the Academy in the continent is the second of the Academy in the continent is the second of the Academy in the continent is the second of the Academy in the continent is the second of the Academy in the continent is the second of the Academy in the continent is the second of the Academy in the continent is the second of the Academy in the continent is the second of the Academy in the continent is the second of the Academy in the continent is the second of the Academy in the continent is the second of the Academy in the continent is the second of the Academy in the continent is the second of the Academy in the Academy in the second of the Academy in the

#### Constance

#### Constant

Constant dark-green hue, is subject to sudden ris-ings, the causes of which are unknown. It freezes in severe winters only. The traffic on it is considerable, there being numerous steamers. The shores are fer-tile, but not remarkably picturesque. Constant (kön-stäu), BENJAMIN, por-trait painter, was born at Paris in 1845. He studied in the École des Beaux Arts and under Cabanel. He exhibited with growing distinction, at successive salons, from that of 1860 with his Hamlet, his Samson in 1872, his Scenes jrom Algiers in 1873-74. his great historical painting of Mohammed 11 in 1453 in the exposition of 1878, and in 1885 a large Oriental subject, as melo-dramatic as possible, with splendid ren-dering of the human figure and strong effects of color. His noble picture of Jus-tinian is in the Metropolitan Art Mu-seum, New York. He was decorated with the cross of the Legion of Honor in 1872, and was a member of the French Acad-emy of Fine Arts. He died in 1902. Constant de Rebecque (kön-stär-d-ré-bek), HENER BENJAMIN, born at Lausanne in 1707; a prominent French liberal poli-tics and on revolutionary subjects, and was elected to the office of tribune; but his speeches and writings rendered him odious to the First Consul, and he was dismissed in 1802. He died in 1830. Constantia (kon-startis), a small district in Cape Colony a few miles from Cape Town, celebrated for its wine, made from vines brought originally from Persia and the Rhine, entermed the best liqueur wine after To-kay, and owing its special properties hargely to the soil.

any, and owing its special properties largely to the soil.
Constantina (kon-stân-tê'nâ), a town of Spain, 40 miles N. N. E. of Seville. Argentiferous lead mines are in the vicinity. Pop. 9687.
Constantine (kon-stân-tên'), a town in Algeria, capital of a province of same name, on a rocky peninsula, 1968 ft. above the sea, and accessible only on one side. It is surrounded by walls, and the only edifice deserving notice is the palace of the bey, now the residence of the French governor. Both within the town and in the vicinity Roman remains abound, the town having been built by the emperor whose name it bears, on the site of Cirta, the capital of the Numidian kings. The manufactures consist chiefly of woolen and linen goods; the trade is in corn. linen, and wax. Pop. of town (1906) 46.806.

Constantine

Constantine (kon'stan-ten), CAIUS FLAVIUS VALKERUS AU-RELIUS CLAUDIUS, Roman emperor, sur-named the Great, son of the Emperor Constantius Chlorus, was born A.D. 274. When Constantine's father was associated in the government by Diocletian, the son was retained at court as a hostage, but after Diocletian and Maximian had laid down the reins of government, Constan-tine fied to Britain, to his father, to es-cape from Galerius. After the death of his father he was chosen emperor by the soldiery, in the year 306, and took pos-session of the countries which had been subject to his father, namely, Gaul, Spain, and Britain. He more than once de feated the Franks who had obtained a



#### Constantine.

Constantine. footing in Gaul and drove them across the Rhine; and then directed his arms against Maxentius, who had joined Max-mian against him. In the campaign in Italy he saw, it is said, the vision of a flaming cross in the heavens, beneath the sun, bearing the inscription, 'Is hoo signo rinces.' Under the standard of the cross, therefore, he vanquished the army of Maxentius under the walls of Rome, and entered the city in triumph. In S13, to gether with his son-in-law, the eastern emperor, Licinius, he published the mem-orable edict of toleration in favor of the Christianity the religion of the state. Licinius, becoming jealous of his fame, twice took up arms against him, but was on each occasion defeated, and finally put to death. Thus in 323 Constantine became the sole head of the Roman Ba-pire. His internal administration was marked by a wise spirit of reforms and by

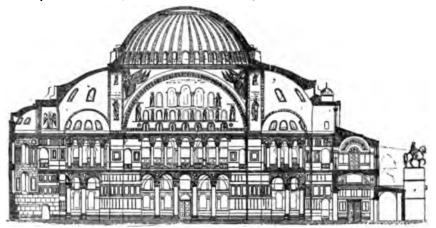


# Constantine

#### Constantinople

slaves, accused persons, widows, etc. In 329 he laid the foundation of a new capi-tal of the empire, at Byzantium, called after him Constantinople. In 332 he fought against the Goths, relieved the em-pire of a disgraceful tribute, and secured his frontier upon the Danube. In 337 he was taken ill, was baptized, and died, leav-ing his empire between his three sons, Con-stantine, Constantius and Constans. He is sometimes numbered among the saints, and his festival observed May 20 or 21. **Constantine**, PAULOVITCH, G r an d-prince of Russia, sec-ond son of Paul I, born in 1779. He dis-tinguished himself in 1799 under Suwar-roff, and at Austerlitz in 1805; and in 1812, 1813 and 1814 attended his brother, the Emperor Alexander, in all his cam-

Constantinople (k o n-stan-ti-nö'pl; city of Constan-tine,' called by the Turks Stamboul, from the Greek eis tém polin, into the city), a celebrated city of Turkey in Europe, capital of the Turkish Empire, situated on a promontory jutting into the Sea of Marmora, having the Golden Horn, an inlet of the latter, on the north and the Bosphorus on the east. The city prop-er is thus surrounded by water on all sides excepting the west, where is an an-cient and lofty double wall of 4 miles in length, stretching across the promontory. On the opposite side of the Golden Horn are Galata, Pera, and other suburbs, while on the Asiatic side of the Bosphorus entrance is Skutari. Occupying the ex-treme point of the promontory on which



Section of Santa Sophia, Constantinople.

Bection of Santa Sop paigns. Later he superintended affairs in l'oland. On the decease of his brother in 1825 he was proclaimed emperor, but renounced his claim. He died in 1831, exerated by the Poles as one of their soft barbarous oppressors. **Constantine I**, King of Greece from from 1920 to 1922, was born at Athens fress of Prussia sister of Wilhelm 1. He succeeded his father, King George, frer the latter had been assassinated in 1913. His abdication was forced by the Allies because of his pro-German attitude for the succeeded, died October, 1920, and Constantine again became king. He sain abdicated Sept. 27, 1922, following the work of Sept. 27, 1922, following the succeeded at Sept. 27, 1922, following the succeeded sept. 28, 1920

bhia, Constantinople. the city stands is the Seraglio or palace of the sultan, which, with its buildings, pavilions, gardens, and groves, includes a large space. At the principal entrance is a large and lofty gate, called Bab Humayum, 'the high door' or 'sub-lime porte,' from which has been derived the well-known diplomatic phrase. Of the 300 mosques, the most remarkable are about fifteen, esteemed the finest in the world. First among these is the mosque of St. Sophia, the most ancient existing Christian church, converted in 1453 into a mosque on the capture of the city by the Turks. Another magnificent mosque is that of Soliman; after which are those of the Sultana Valide, built by the mother of Mohammed IV, and of Sultan Achmet, the most conspicuous object in the city

#### Constantinople

when viewed from the Sea of Marmora. The streets are mostly extremely narrow, dark, dirty, and ill paved, and exceedingly crooked aud tortuous, but there has been a certain opening up and improvement within recent years owing to the construc-tion of tramways and the railway to Adrianople, which runs along the shore of the Sea of Marmora and past the Sera-glio to the entrance of the Golden Horn. The numerous covered and uncovered ba-zaars are severally allotted to particular trades and merchandise. Constantinople has but one remarkable square, called the when viewed from the Sea of Marmora. trades and merchandise. Constantinop.c. has but one remarkable square, called the



long, and a little more than half a mile broad at the widest part, Among the imports are grain, timber, cotton stuffs, and other manufactured goods. The er-ports consist of silk, carpets, hides, wool, goats' hair, valonia, etc.—The suburb GA-LATA is the principal seat of foreign com-merce. Here are situated the arsenals, the dock-yard, the artillery barracks, etc., extending along the Bosporus for nearly 1½ miles. It is an ancient place.—PERA occupies the more elevated portion of the promontory of which Galata forms the maritime part. Both it and Galata have nodern European towns.—Tor-HANEH is situate a little further up the Bosporus than Galata, of which it forms a continuation. It has a government foundry and

which it forms a continuation. It has a government foundry and arsenal for cannon.—Constanti-nople occupies the site of the an-cient Byzantium, and was named after Constantine the Great, who rebuilt it about A.D. 330, It was taken in 1204 by the Crusaders, who retained it till 1261; and by the Turks under Mohammed II, May 29, 1453—an event which completed the extinction of the Byzantine Empire. See Byzantime Empire and Byzantium. Pop. (1914), 1,300,000.



## · Constellations

eighth general council (869-870) declared against the lconuclasts, deposed l'hotius, and confirmed St. Ignatius in the see of Constantinople. This council is not rec-ognized by the Greek Church. **Constellations** (k o n-s tel-la'shuns) are the groups into which astronomers have divided the fixed stars, and which have received names for

constellations (to not tel-lafshus), the second, and so on. Stars of the sixth narrotocomers have divided the faced are the smallest visible to the material of some animal, person, or inanimate faces. Its immediate effects are disord the induced excession of the faced are the smallest visible of the into a constellation, to which the stars) and which have received names for faces. Its immediate effects are disordered appetite, a dry, coated or clammy object is given, must be entirely arbitic trans.
 Constitution (to some animal, person, or inanimate faces. Its immediate effects are customer, since the several points (the stars) is the same of some animal, person, or inanimate faces. Its immediate effects are customer, since the several points (the stars) is the same of the facet. Its impediate offects are customer and scale of the facet of the distribution of the facet. Constitution of the facet offect are the several stars in the add, toport, irritability and desponder by the Explains. At various offect is induced by indigered in sleep, and scale modified by the Romans transment the page system, the Vener is image the anong private so all the constellations. Weigelius, a professor of Jenn, anong two nothed by strict attention to regimen, is used and the string the attention (1780-01) the distinguish it from the legislative asserver to fullower the string of the anong fullowed by attrict attention (1780-01) the distinguish of 1848 had a similar man. They are the following: -1, the stars, whether it be a written instrument weive signs of the zodiac, we applied Neriphic area of all the the acceptance of the first of the famous princes of the forts of the distinguish if from the legislative asserver of the constellations. The dister stars found the prince of the first of the famous friences of the first of the famous fully and the the acceptance of the first of the famous friences and the the stars by on a ther

and objects, including the Camelopard, the Fly, the Air-pump, the Compasses, etc. The different stars of a constellation are marked by Greek letters, a denoting those of the first magnitude,  $\beta$  those of the second, and so on. Stars of the sixth magnitude are the smallest visible to the naked eye. Several stars have also par-ticular names. naked eye. Se ticular names.

Constitution

#### Constitution

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# Consul

Consumption

stance became again practically monar-chical. On April 10, 1804, he was pro-claimed emperor, and even the nominal consulate ended.

consulate ended. At present consuls are officials ap-pointed by the government of one country to attend to its commercial interests in seaports or other towns of another coun-try. The duties of a consul, generally speaking, are to promote the trade of the country he represents; to give advice and assistance when called upon to his fellow-subjects; to uphold their lawful interests

The duties of a consul, graverative problem of the propresents; to give advice and sustainance when called upon to his fellow subjects; to uphold their lawful interests and privileges if any attempt be made to injure them; to transmit reports of trade of the consult compare relation of the United States consults, and vice-consults.
 The position of the United States consults and concentions the various trade and lodustry are sent to the various privileges and jurisdiction. By the treat of 1810 with Sweden the United States consults, and their reports are published by the bureau of states respectively should be solid industry are sent to the various first states respectively should be solid on the same year to the various the variates respectively should be solid on an appendix of the consults of the consults of the consults of the same year to the consults of the same year to the various should be permitted to hold real spread the same year to the various should be permitted to hold real spread the same year to the various should be solid there also the origin on the consults of the same year of the same year to the various should be solid with Strates in 1853, they was been in treaties containing this clause. Hy to appear a sa witness is often enables also consults of other shubjets are interested. Exemption from haided state courts. They also recognize for the largue goods. The league began to inquire into the conditions of service which obtained in the state courts. They also recognize for particely to appear as a witnes is often enables were could be solid down certain conditions to the state ourts. The distributed between the same reportied by the president, and are distinct from the consults of a there in the district where there is no privileges and under the same reservice which attisfied their demands and they deverters. The was departing the solid be state distributed by the president, and are appointed by the president. The result was the distret was the direction of the cons

being divided into seven classes, and that of consul into nine classes. Consuls are appointed by the president with the concurrence of the Senate. No specified term of service is fixed; usually all important consular officers are changed with changes of the administration. The specified term of service is fixed; usually **Consumption**, in political economy, all important consular officers are changed with changes of the administration. The of the products of industry or of things result of this system has long been recog- having an exchangeable value. It is nized to be unsatisfactory. A large meas- usually characterized as productive or

ure of special knowledge is required for efficient consular service and such knowl-edge can be gained only through long service. Another defect from which the service. Another defect from which the American consular system suffers is inad-equacy of salaries. There are only a few posts carrying a salary of over \$3500. In some cases fees for verifying invoices, etc., add very materially to the income of the consul; but in very few cases does the aggregate income of the consul compare with that of officers of like grade of for-eign nations.

Gr. phthiö, to consume), now us known as tuberculosis (which see).

# **Contact Action**

**Contact Action** unproductive, according as it does or does not conduce to the efficiency of a pro-ducer and to further production. Thus wealth in the form of machinery is con-sumed productively by wear and tear in the processes of production; and, similarly, wealth expended in improving land is productively consumed; but the wealth expended in the maintenance of an operatic artiste is, from the ordinary point of view, unproductively consumed. The classification, however, is not of a very definite kind, the distinction lying, for the most part, in the degree of direct-ness and obviousness with which the act of consumption is related to production. Hence in the case of the operatic artiste it is sometimes urged that the recreative benefit conferred upon the community tends indirectly to increase efficiency in production, and that from this point of view the artiste consumes productively. So the expenditure of wealth in war, or in preparations for war, usually classed as unproductive, may be really productive consumption, as tending to the assurance of the producer in the stability of the consideration of an act of consumption as productive or unproductive involves the consideration of elements of a frequently incommensurable kind, and the rough practical economic test has to be employed with some amount of reservation. Con-sumption is the end of all production; and as the demand of the consumer de-termines the employment of the various coefficients of production, land, labor and capital, it is urged by many later economists that the scientific treatment of economists that the economists that the scientific treatment of economics should proceed from consump-tion to production, instead of from pro-duction to consumption in accordance with the method of the older economists. Too much stress may be laid upon this method, but the consideration of economic problems from the standpoint of the con-ument is of advantage as giving the sumer is of advantage, as giving the social need, rather than the producer's profit, the prior claim upon the attention. Contact Action. See Catalysis.

Contagion (k o n-t  $\tilde{a}'_j$  u n), the com-munication of disease by buyer, by carrying the engagement to pay contact direct or indirect. A distinction the price of shares bought over to the has sometimes been made between con-next account day. In reality, contango tagion, as the communication of disease is interest paid for the loan of money strictly by contact, and *infection*, as com-for the interval between account days, munication of disease by the miasmata. The price at which the bargain is entered exhabitions or germs which one body is called the making-up price, gives out and the other receives. There **Contarini** (kon-th-re'ne), a noble is little doubt that excessively minute disease germs proceed from the breath, furnished seven doges to the State, be the perspiration or other excretions of a sides several men of note.

discosed person, and are capable of prop-agating the discase in another person; but much remains to be learned con-cerning the action of these. Antiseptica, or disinfectunts, are used to destroy the poisonous particles, such as formalde-hyde, carbolic acid, sulphur, permangan-ate of potash, chlorine gas, etc.

#### Contagious Diseases (Animals)

Act, an act of the British Parlia-ment passed in consequence of the ravages of the disease known as *Rinderpest* or cattle-plague, which broke out in 1865. Commissioners were ap-pointed to investigate the subject, and in 1869 an act (subsequently amended by acts in 1878, 1884 and 1886) was passed enforcing regulations for preventing the introduction and spread of contagious diseases. diseases.

In the United States similar acts were made to stamp out pleuro-pneumonia, or lung plague, which caused much loss among neat-cattle. Kentucky, Indiana, Illinois and Missouri suffered largely from this discour but it has been excelled among neat-cattle. Kentucky, Indiana, Illinois and Missouri suffered largely from this disease, but it has been completely stamped out by the Bureau of Animal In-dustry. The symptoms of lung plague are fever, dry muzzle, accelerated pulse and respiration, depression, cough and indications of pleurisy and pneumonia. In about 50 per cent. of the cases death occurs in from one to two weeks from its attack; of the remainder about one-half become chronic and recover. No thera-peusis that has been tried has been found of any value, so governments have made regulations to quarantine infected and suspected animals, and for the slaughter of those regarded as dangerous to healthy animals. The United States freed itself from pleuro-pneumonia by enforcing these measures. It is estimated that the loss caused by this disease reached several million dollars in this country, while in Britain the annual loss for some years amounted to over \$10,000,000, It does not affect human beings. See Rinder-pext. pest.

Contango (kon-tang'go), in stock-jobbing, a sum of money paid to a seller for accommodating a buyer, by carrying the engagement to pay

# Contempt

Contract

**Contempt** (koi-temt), an offense against the dignity, order, or authority of a court or legislative assembly. Contempts committed out of court may be punished by fine or im-prisonment, contempts done before court are usually punished in a summary way by commitment or fine. The power of vindicating their authority against contempt is incident to all superior courts. courts

courts. Continent (kon'ti-nent), a connected tract of land of great ex-tent, forming a sort of whole by itself, as Europe, Asia, Africa, North and South America; or we may speak of the Eastern and Western continents. Europe, Asia and Africa being regarded as one, and North and South America another. Australia, from its size, is often regarded as a continent, while Europe and Asia, regarded as a single body of land, are frequently spoken of as a continent un-der the name of Eurasia. frequently spoken of as a der the name of Eurasia.

der the name of Eurasia. **Continental System** (k o n-ti-nen'-tāl), a plan devised by Napoleon to exclude Britain from intercourse with the continent of Europe. It began with the decree of Ber-lin of November 21, 1806, by which the British Islands were declared to be in a state of blockade; all commerce. inter-course and correstondence were prohibi-British Islands were declared to be in a state of blockade; all commerce. inter-course and correspondence were prohibi-ted; every Briton found in France, or a country occupied by French troops, was declared a prisoner of war; all property belonging to Britons, fair prize, and all trade in goods from Britain or British colonies entirely prohibited. Britain re-plied by orders in council prohibiting trade with French ports, and declaring all harbors of France and her allies sub-jected to the same restrictions as if they were closely blockaded. Further decrees on the part of France, of a still more stringent kind, declared all vessels of whatever flag, which had been searched by a British vessel or paid duty to Brit-ain, denationalized, and directing the burning of all British goods, etc. These decrees caused great annoyance, and gave rise to much smuggling, till annulled at the fall of Napoleon, 1814. **Contingent** (k untin'jent), the name of troops which is to be furnished by each member of a number of states com-posing a confederation. **Continuity** (kon-ti-n0'i-ti), LAW OF,

posing a contederation. **Continuity** (kon-ti-fil'i-ti). LAW OF, in the investigation of the laws of motion and change in general. It may be enun-ciated thus: nothing passes from one-state to another without passing through all the intermediate states

Contorniati (kon-tor-ni-a'ti; It.), **Contorniati** (kon-tor-ni-a'ti; 1t.), ancient medals or me-dallions in bronze, having a curved fur-row (contorno) on each side, supposed to have been struck in the days of Con-stantine the Great and his successors, and to have formed tickets of admission to the public games of the circus of Rome and of Constantinople.

Contour (kon'tor), an outline. In geodesy contours, or contour lines, are lines or levels carried along the

Contour geodesy contours, or contour lines, are lines or levels carried along the surface of a country or district at a uniform height above the sea-level, and then laid down on a map or plan, so that an approximately true outline of its con-tour is presented, the degree of accuracy depending on the number of lines or levels taken between the sea-level and the highest point in the region. **Contraband** (kon'tra-band), in com-merce, all goods and wares exported from or imported into any country, against the laws of said country. There are, also, a number of articles termed contraband of war which neutrals may be prevented, by one belligerent, from carrying to another. These formerly were confined to arms and munitions, but the contraband list has been so lengthened during recent wars as to include practically everything that might be of benefit to a belligerent. **Contrabasso** (k o n - tr a-bas'so), the ally employed by musicians of all na-tionalities to designate the largest instru-ment of the violin kind (called some-sis from the lower A of the bass clef to tenor F. In Germany a fourth string is used, which gives it a range of three notes lower. **Contract** (k o n'trakt), in law, an agreement or covenant be-

used, which gives it a range of three notes lower. Contract (kon'trakt), in law, an agreement or covenant be-tween two or more persons, in which each party binds himself to do or forbear some act, and each acquires a right to what the other promises. Contracts may be in express terms or implied from the acts of the parties; they may be verbal or written, and at common law both forms are binding; but by statute law a promise must be in writing. To be valid, a contract must be entered into by parties legally competent; that is, of sound mind and of full age. The act contracted for must not be contrary to law or public policy. Thus, an agreement to do injury to another or a contract must be founded on a consideration either of money or some act whereby an undoubted advansome act whereby an undoubted advan-

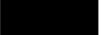
tage accrues to the party sued. Lastly, the contract is voidable if obtained by fraud, mistake, or compulsion. Contract, posed to exist from the beginning between the sovereign power and the subject. contractions power and the subject. Such a contract is evidently a mere sup-position, having no historical foundation in any annals which have been preserved. Contractility (kon-trak-til'i-ti), the power which certain tissues in animals and plants have dur-ing life, of shortening themselves. It may be either voluntary or involuntary. Contractions (kon-trak'shuns), ab-breviations employed with the view of saving labor in writing, and also in former times with the view of saving parchment in extending MS. copies of works, deeds, etc. Contraction takes place in several modes, as by elision; writing a smaller letter above the word contracted; running two or more letters into one character; by symbols representing syllables or words; by initial letters; thus: recd. for re-ceived; gam for quam; Mr. for Maater; & for et: p for per: S.P.Q.R. for Sena-tus populusque Romanus. When the contraction consists of the initial letter, syllable, or syllables of a word, as wit, for ultimo, it is more correctly termed an abbreviation. See Abbrevia-tions. Contralto (kon-tral'tō), in music, the

ders of a court; the offense of non-appearance when summoned judicially. Conus (kô'nus), a genus of gaster-opodous molluscs, the type of the family Conidæ or cone-shells, so named from the conical form of the shell. They are found in the southeru and tropical seas.

hospi-Convales' cent Hospitals, intermediate between ordinary hospitals, and the homes of the patients, estab-lished in order that those who have been successfully treated may be fully restored to health and strength before going back to their former unsanitary sur-roundings.

**Convallaria** (kon-va-lä'ri-a), a genus of plants, nat. order Lil-iacew, the only species being the lily-of-the-valley. Convallamarin and convalla-rin are two glucosides obtained from the plant and are used in functional effort plant and are used in functional affec-tions of the heart and in cardiac dropsy for their stimulating effect on the heart. for their stimulating effect on the heari. Convection of Heat, the transfer-ence of heat by means of the upward motions of the particles of a liquid or gas which is heated from beneath. See *Heat*. Convent (kon'vent), a religious house inhabited by a society of monks or nuns. See *Monastery*. Conventicle (kon-ven'ti-kl), a private assembly or meeting for the exercise of religion. Historically, the

all, for utimo, it is more correctly money of houss of houss, see monastery.
Contraito (kon-traitō), in music, the term was specially applied to meeting for the exercise of religion. Historically, the term was specially applied to meeting for the exercise of religion. Historically, the term was specially applied to meeting of petty sects and dissenters in the statutos of the time of Charles II.
Contrate-wheel having the teeth projecting perpendicularly to the plane of the wheel.
Contravallation (k o n-t ra-val-lā) shun), in fortificanas the line of circumvallation, to defend the besiegers against the enterprises of the garrison.
Contrayerva (kon-tra-yer'va), the arom at i.e, bitterish root of Dorstenia Contrait, a plant of the nerica, and used as a stimulant and tonic.
Controller (kon-troiler), a public of the nerica, and used as a stimulant and tonic.
Contrale (kon'tū-a-si), in law, a large scale and in the evening, at which the company move about, converse with



# Conversion

their sequeintances, partake of tes, cof-the, or other refreshments, and often have objects of art, science, or general interest set out for their inspection. Conversion (kon-vershun), a term in logic. A proposition is converted when the predicate is put in the place of the subject, and the subject in place of the subject, and the subject in place of the predicate; as, 'no A is B' ('no virtuous man is a rebel'), the converse of which is 'no B is A' ('no rebel is a virtuous man'). Simple con-version, however, in this manner is not always logical. In the case of universal affirmatives, for example, 'all A are B' (say, 'all men are animals'), the simple converse 'all B are A' ('all animals are men') would not be true. Converter (kon-ver'ter), the vessel

men') would not be true. **Converter** (kon-vér'tér), the vessel steel-making process which holds the molten iron or carbide of iron which is to be converted into steel. **Convex** (kon'veks; Latin convesus, vaulted, arched), rising in a circular or rounded form; the contrary to concare (which see). Thus the inside of

a watch-glass is concave, the outer surface convex.

Convex Lens. See Lens.

Convex Lens. See Lens. Conveyancing (kon-va'an-sing), the practice of drawing deeds, leases, or other writings (convey-secce) for transferring the tille to prop-erty from one person to another, of investigating the tille of the vendors and purchasers of property, and of framing those multifarious deeds and contracts which govern and define the rights and liabilities of families and individuals. The business of conveyancing is carried on by barristers, solicitors, and members of the legal profession generally. Convict (kon'vict), the general term found guilty of a serious offense and sen-tenced to penal servitude, such servitude consisting at times of forced labor on some public work. In England transpor-tation was formerly the equivalent pun-ishment.

ishment. Convocation (k o n-vo-ka'sbun), an assembly of the clergy **CONVOCATION** assembly of the clergy inflammation of the brain membranes or of England, belonging either to the prov-ince of Canterbury or to that of York, nervous temperament are often the sub-to consult on ecclesiastical matters. From jects of convulsions during dentition, the fact that the province of Canterbury particularly when accompanied by a dis-is by much the more influential of the ordered state of the bowels or the pres-two provinces into which England is ence of worms. ecclesiastically divided, the convocation of the province of Canterbury is often spoken of as the convocation, as if those fanatics of the eighteenth century there were only one. In former times in France who had or affected to have convocations had the power of enacting convulsions, produced by religious im-

canons; but this power was virtually abolished by the statutes of Henry VIII and Elisabeth.

and Emisabeth. **Convolvulacese** (kon-vol-vû-lā'se-ē), a natural order of plants comprising about 700 species largely consisting of climbers. Some of them have valuable properties. Jalap is derived from the *Escogonium* or *Ipomoza purgs*, an inhabitant of Mexico.

them have valuable properties. Jalap is derived from the *Esogonium* or *Ipomose purge*, an inhabitant of Mexico. **Convolvulus** (kon-vol'vû-lus), a ge-nus of plants, type of the nat. order Convolvulaces, consist-ing of alender twining herbs with milky juice, bell-shaped flowers, and five free stamens. Some species are commonly known as bind-weeds (*C. srvcnsie*); others are cultivated in gardens. *C. iri-color*, or minor convolvulus, with its large flowers of violet blue, with white and yellow center, is a familiar species. Scammony is obtained from the root of the *Convolvalus Scammonis*, a native of Syria; the liqueur *noyas* from *C. dis-soctus*. Some species, like the *C. Batti ias*, or sweet-potato, have tuberous and fleshy roots capable of being used as food. *Convolvalus Jalaps* was long con-sidered as yielding the true jalap of com-merce. This is now known to be pro-cured from *Esogonium* or *Ipomæs* purge, an allied plant, found in the mountainous regions of Mexico. **Convoy** (kon-vol), a fleet of merchant-from attack and capture by an enemy. In military language it is used for escori. **Convulsion** (kon-vul'shun), a violent, i n v oluntary, spasmodic muscular contraction or series of con-tractions, with alternate relaxations. Convulsions are universal or partial, and have obtained different names according to the parts affected, or the symptoms. The muscles principally affected in all species of convulsions are those imme-diately under the direction of the will, as those of the eyelids, eye, face, jawa, neck, superior and inferior extremities. Con-vulsions are produced commonly by irri-tation of some part of the brain or spinal cord, such as the general convulsions in infammation of the brain membranes or of the nerves themselves. Children of a nervous temperament are often the sub-jects of convulsions during dentition, particularly when accompanied by a dis-ordered state of the bowles or the pres-ence of worms.

Convulsionists

#### Conway

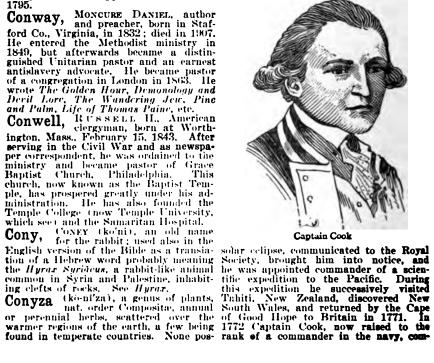
pulses. The name was first applied to fa-natics who exhibited varied seizures at the tomb of a Jansenist at St. Médard,

the tomb of a Jansenist at St. Médard, some jumping, some barking, and others mewing like a cat. **Conway** (kon'wā), or ABERCONWAY, a town and very ancient bor-ough of North Wales, in Carnarvonshire, about 13 miles E. N. E. of Bangor, at the mouth of the Conway. It is notable for its old castle built by Edward I, a sus-pension bridge built by Telford, and a tu-bular railway bridge by Stephenson. Pop. 5242.—The river Conway has a course of about 30 miles through much romantic scenery.

Convay, Hishing and the start of the second second

**Conway,** MONCURE DANIEL, author ford Co., Virginia, in 1832; died in 1907. He entered the Methodist ministry in 1849, but afterwards became a dictin-nuclear Univ.

sess properties of any value. In England C. squarrösa is called feabase because of its supposed property, when powdered and sprinkled, of driving away fleas. Cooch-Behar, or KUCH-BEHAS tive state in India, in political relation with the government of Bengal. It forms a level plain of triangular shape, inter-sected by numerous rivers, and is en-tirely surrounded by British territory. The greater portion of the soil is fertile and well cultivated. Area, 1307 sq. miles; pop. 567,037.—The chief town, CoocH-BEHAE, contains some handsome public buildings and a splendid new pal-ace of the maharajah. Pop. 12,000. Cook, JAMES, a famous British navi-fi728, of parents not above the rank of peasantry. He was at first apprenticed to a shopkeeper; but acquiring a love for the sea, he became a sailor. In 1755 he entered the royal navy, and four years later, as sailing master of the Mercury, performed valuable services in surveying the St. Lawrence River and the coast of Newfoundland. Some observations on a



# Cooke

manded a second expedition to the Pacific and Southern Oceans, which resulted, like the former, in many interesting observa-tions and discoveries. He returned to Britain in 1774. Two years later he again set out on an expedition to ascer-tain the possibility of a northwest pas-sage. On this voyage he explored the western coast of North America, and dis-covered the Sandwich Islands, on one of which, Hawaii, he was killed by the natives, February 14, 1779. Captain Cook wrote and published a complete ac-count of his second voyage of discovery, and an unfinished one of the third voy-age, afterwards completed and published by Captain James King. Cooke, JAY, banker, born at Sandusky, Cooke, Ohio, in 1821; died in 1905. He engaged in the banking business at Philadelphia in 1842 and established a new firm in 1861, which did a large and useful business as a government agent in placing war-loans. It subsequently financed the Northern Pacific Railroad, this leading to the failure of the firm in 1873. the first event in the great financial

Infinited the Northern Factor Rainoad, this leading to the failure of the firm in 1873, the first event in the great financial panic of that year. The later success of the Northern Pacific Railroad restored Mr. Cooke's wealth.

Mr. Cooke's wealth. **Cooke**, JOHN ESTEN, author, born at Winchester, Virginia, in 1830; died in 1886. His works include The dired in 1886. His works include The *Virginia Comedians, Larry of Eagle's* Next, The Last of the Forests, Hammer and Rapier, also History of Virginia, Life of Robert E. Lee, etc. **Cooke**, Rose TERRY, authoress, born at Cooke, West Hartford, Connecticut, in 1827; died in 1892. She wrote Some-body's Neighbors, Huckleberries, Poems by Rose Terry, etc., most of her writings hierary merit. **Cookery** (kuk'e-ri), the preparation

Mr. Cooke's weath.
Cooke, Joux Estex, author, born at log mice horn of Pungannon; has nanuly propared by winchester, Virginia, in 1830; died in 1886. His works include The Virginia Comedians, Larry of Eagle's which a liquid can be kept cool by Nest. The Last of the Foresta, Hammer constantly exuding through the substance of the vessel.
Cooke, Rose Tergy, etc., most of her writings being short tales of much power and literary merit.
Cookery (kuk'e-ri), the preparation serve for a term of years. The first coolie emigrants appear to have been introduced in the West Indics, born at the stort able or the substance of firen and large trade in first ports. The store of the vessel.
Cookery (kuk'e-ri), the preparation serve for a term of years. The first coolie emigrants appear to have been introduced in the West Indics, appear to have been too British Guiana from Calaber coolies and the places, their passage being paid for them on their agreeing to the coolies employed in Guiana are chiefly from India.
Cookery (kuk'e-ri), the preparation serve for a term of years. The first coolie emigrants appear to have been introduced in the West Indics, stewing, etc. Each of these processes
Cooley (kö7e). Thowas M., jurist, and much mere easily dealt with by the fessor of law in Michigan in 1843, both of animal and vegetable food, soft studied haw, and in 1850 became programe and much mere easily dealt with by the fessor of law in Michigan in 1843, both of animal and vegetable food, soft studied haw, and in 1850 became programe and more digestable. The art of cookery was the substance of the supreme Court and more discustable perfection among of Michigan in 1850 became programe and more the term and on the president Cleve start to reach a high degree of art in this department. Their tutional jurists and was the author of the substance.

cooking, like that of the ancient Romans, is distinguished by a free use of oil. Italian cookery seems to have been trans-planted by the princesses of the House of Medici to France, and was carried there to perhaps the highest degree of perfec-tion; even yet the skill and resource which the French cook shows in dealing often with very slight materials is a highly creditable feature in the domestic economy of the nation. No other people seems to have equaled the French in this art. art.

**Cook's Inlet**, an inlet of the North Pacific Ocean, run-ning into the territory of Alaska for about 150 miles; explored by Captain Cook in 1778 ning into the territory about 150 miles; explo Cook in 1778.

Cook in 1778. **Cook's Islands**, a name of the Her-vey Islands, given to them because discovered by Captanu Cook. See Herrey Islands. **Cook's Strait**, the channel which se parates the two principal islands of New Zealand, dis-covered by Captain (took in 1770. **Cookstown** (kuks'toun), a town of Ireland, County Tyrone. 10 miles north of Dungannon; has nanu-

10 miles north of Dunganhon; has manu-factures of linen and large trade in flax. Pop. 3531.

# Cooley

Coombe (köm), WILLIAM (1741-1823), a British author, born at Bris-tol. He wrote the Diaboliad; the Devil Upon Two Sticks in England, a continua-tion and imitation of Le Sage's novel; the Tour of Dr. Syntax in Search of the Picturesque; English Dance of Death. etc., all illustrated by Rowlandson. Coomptah (köm'ta), a town of In-the presidency of Bombay, about 330 miles S. S. E. of Bombay. It has an open roadstead and a large cotton trade. Pop. 10.623. Cooper (kup'er), SIR Astron

 numerous legal works, chiefly based on the Constitution of the United States.
 Coolidge an American public official, United States at Lyons for three years, born on a farm in Vermont, educated at Black River Academy and Amherst Col- died at Cooperstown, New York, in 1851. United States his novels he wrote a history of in Northampton, Mass., and was successively mayor, assemblyman, State senator, United States his novels he wrote a history of in Northampton, Mass., and was successively mayor, assemblyman, State senator, United States Navy and some voluited states in Boston, in September, State in Boston, in September, thropist, born in 1791; died in 1883. He practical prominee of the United States, being the nominee of the Republican party, with Warren G. Harding as president.
 Coomassie. See Kumassie.
 Coombe (köm), WILLIAM (1741-1823). tol. He wrote the Diaboliad; the Deril in on intition of Le Sage's novel; established by him to furnish a free the Tour of Dr. Syntax in Search of the Cooprises day classes, in which women are instructed in dirawing, painting and other branches of art; evening classes, in which young men and women are taught art, engineering, chemistry, mathematics, etc.; free reading-room and young men and women are taught art, engineering, chemistry, mathematics, etc.; free reading-room and young the server in the presidency of Bombay, about 330 library, etc.

milles S. S. E. of Bombay. It nas an infinematics, etc.; nee reasing room and open roadstead and a large cotton trade. Hivry, etc. Pop. 10.629. **Cooper** (kup'er). Sir ASTLEY PAS-born in Norfolkshire in 1768; died in 1841. He studied medicine in London, jects. One form of cooperative societies and attended the lectures of John Hun-ter. After visiting Paris in 1704 he was appointed professor of anatomy at Sur-gron's Hall, and in 1800 head surgeon of Guy's Hospital. He became a very of Guy's Hospital. He became a very sitem on him. **Cooper**, JAMES FENIMORE, an Ameri-non, New Jersey, in 1789, studied at row as a midshipman at the age of ter kind have been established very widely sixteen. In 1821 appeared the American navy as a midshipman at the age of ter kind have been established very widely sixteen. In 1821 appeared the American navy as a midshipman of the first production of the production of the Spy and the Proneers that he began to take was not till the production of the Spy and the Pioneers that he began to take souce solution for producted on the principal states and in the backson of the Spy and the Pioneers that he began to take souce solution the began to take souce states also the general proper of the first and the Pioneers that he began to take members, alter a certain fixed percent and the Pioneers that he began to take souce for his peculiar powers, and the successful of the supplus profits among the members, is conducted for interest on the a high place a mong contemporary purchases, after a certain fixed percent and the Pioneers that came a steady the the Pilot, Red Rorer. Waterwitch. Pathfinder, Deerslayer and Last of the Pathfinder, Deerslayer and Last of the supplus profits and proper and the superlise of which, ike the Pilot, Red Rorer. Waterwitch. Pathfinder, Deerslayer and Last of the supplus profits and proper anore and proper and proper and proper and proper an

# Cooper's Ureek

**Cooper's Creek** more than \$1,300,000. A striking feature in connection with the societies in the North of England, where they are very numerous and flourishing, is the forma-tion of an association of coöperative societies. The North of England Co-operative Wholesale Society, for the pur-pose of making their purchases on as large a scale as possible, so as to increase the profits. There are now in Great Britain about 1300 societies, with sales amounting to \$150,000,000 a year. Simi-iar associations have been formed for the benefit of other than the working classes, such as clergymen, lawyers, medical practitioners, officers in the army and navy, members of the civil service, etc. The Ciril Service Supply Association of London is the most extensive of these, and has been very successful, the an-nual sales amounting to about \$8, 500,000. Manufacturing associations of all kinds have been tried on the Euro-pean continent, but neither there nor in Britain have they, on the whole, been very successful. In these societies, gen-erally called Working Men's Asso-ciations, the shareholders are usually also the workmen, and the surplus profits are divided among them as workmen after they have received the fixed per-centage as sharcholders, and in some cases also among the workmen who are not shareholders, if there are any succh. In Germany there are societies for the very successful. In these societies, gen-is Merkara. Pop. 180,007. erally called Working Men's Asso-ciations, the shareholders are usually also the workmen, and the surplus profits are divided among them as workmen after they have received the fixed per-centage as shareholders, and in some trade as shareholders, and in some trade as solution the ear societies of united shore purchase of raw materials, manufactur-ing associations, societies of united shore, taken the form of building-loan associa-tions for providing the members with bouses of their own, productive and dis-trong societies is the BARCOO, and *Ericadly Societies*. **Cooper's Creek**, or the BARCOO, and *Ericadly Societies* (or BARCOO), and forks southvest to Lake Eyre. **Coordinates** (kéo-ridi-nits), in gen-of a point in space or in a plane which the their position is determined. Co-ordinates (kéo-ridi-nits), in gen-of a point in space or in a plane which is understood to contain all the figure runder considering. They determine the position of a point in space or in a plane which is understood to contain all the figure runder considering. They determine the position is understood to contain all the figure runder considering in the several result. Prev. etc. He rame of the species, and has received the mame of the species, of the species, and bas received the there onside a name. Co-restrict in space or in a plane which is understood to contain all the figure runder considerition. They determine the position is understood to contain all the figure straight lines only, or by a straight lines and angles; in the liter the resins dissolved in a volatile of several resins dissolved in a volatile of the several resins dissolved in a volatile of several resins dissolved in a volatile of the several resins dissolved in a volatile of the several resins dissolved in a volatile of

to each other they are called *rectangu-lar* coordinates, and when they make any other angle

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e a c h otner, and <u>1</u> P is a point <u>6</u> whose position is Coördinates. If we know on and on we can easily find the position of P, of which on on are called the coördinates. **Coorg** (körg), or KURG, an ancient principality now a province in Southern Hindustan, lying between My-sore on the east and northeast and the districts of South Canara and Malabar on the west; area, 1583 sq. miles. The country has a healthy climate and yields coffee, spices, timber. etc. The capital is Merkara. Pop. 180,007. **Coos** (kō-os). See Cos.

COOS (ko-os). See Cos.

Copaiba

medicine, especially in affections of the Copartnership. See Partnership. urino-genital organs).



Copaiba Plant (Copaifera officinalia).

Copaise Plant (Copai/tra officindia). Copais (ko-pā'is), or T O P O L 1AS, a Bacotia, enclosed by mountains on every side, and forming a shallow expansion of the river Cephissus some twenty miles broad, the water having numerous subterranean outlets to the sea. In 1881 a French company was formed for drain-ing the lake or marsh, and thus re-deeming some 62,000 acres of land. Operations were commenced in 1881, and the drainage was completed before the end of the century. Copal (kô'pal) is a gum-resin yielded by different trees in Africa. South America, India and Australia, and differing considerably in quality in its several varieties; but in general if is hard, shining, transparent, and citron-copred. When dissolved in alcohol or turpentine it makes a beautiful and very durable varnish. Indian copal, known in England as gum animé, is produced by differing transparent, and citron-copal from several species of Hymenara and Ifica, and from Trachylobium martianum. A substance called fossit copal or copolin is found in some places, I't creations is found in some places, I't creatio dor.

Copalche Bark (kö-pal'chā), the bark of the Strych-nos pseudoquina (order Euphorbiacer), a native of Brazil. The name is also given to the bark of Croton pseudo-ching (order Loganiacea) of Mexico. It resembles cascarilla bark in its prop-ortios ertics.

erties. **Copan** (kö-pan'), an ancient ruined city of Honduras, Central Amer-ica, on the Copan River, with some remarkable remains of Indian origin. **Coparcenary** (k ö-p a r' se-na-ri), in inheritance; joint heirship in which each is entitled to a distinct share of the ben-efits, while the projecty remains un-divided. divided.

Cope (köp), a sacerdotal vestment, resembling a sleeveless cloak with a hood reaching from the shoulders to the feet, worn on solemn occasions,



Cope.

A, Probably Dr. Robert Langton, Queen's Coll. Oxon. 1, Cope. B. Figure from Pugin's Glomary. 222, Cope.

and particularly in processions, by the pope and other bishops as well as by priests. It was one of the vestments retained at the Reformation in the Angli-

prices. It was one of the vestments retained at the Reformation in the Angli-can Church. Cope, CHARLES WEST, an English the Royal Academy and in Italy, and first exhibited at the academy in 1831. In 1843 he gained a prize of £300 for his picture The First Trial by Jary; in 1844, by his fresco the Meeting of Jacob and Rachael, he secured the com-mission for one of six freecoes for the House of Lords, producing accordingly Edward the Black Prince receiring the Order of the tiarter. He executed eight freescoes from English history of the sev-enteenth century for the House of Lords, while his other works were numerous, the subjects being historical, romantic, or domestic. He also produced Last Days of Cardinal Wolsey, Departure of the Pilgrim Fathers, L'Allegro and R Jessica, Ann Page and Slender, Leer and Cordelia. He became A.R.A. in 1814 and R.A. in 1848, but retired in 1883, and died in 1800. Cope, EDWARD DRINKER, an eminent pensylvania, in 1840; died in 1897. He was professor of natural history at

#### Copeck

Copeck Haverford College 1864-67, and for many years paissontologist to the United States Territorial Surveys. In 1864 he was appointed curator of the National Museum in Washington, in 1801 became professor of goology in the University of Femaylvania, and in 1866 was presi-dent of the American Association for the Advancement of Science. He gave special attention to comparative anatomy and did excellent work in the systematic arrangement of the fishes and batra-chians and some groups of reptiles and mammals. He discovered and described over 1000 species of fossil vertebrata and made extensive explorations in the fossil-bearing strata of the western United States and elsewhere. He made im-portant contributions to the theory of evolution, writing Origis of the Fistest and Primary Factors of Organio Hools-ion, also many works and papers on systematic anatomy and descriptions of the Cretaceous and Tertiary Vertebrates. His Estinct Vertebrates of the Econe Formations of Wyoming describes some of the most remarkable types of mamma-la ever discovered. He purchased the American Naturalist in 1891 and edited it ill his death. Copeck (kö'pek: kopeika, a lance), a from the impression of St. George bear-ing a lance, the hundredth part of a silver rouble, or about the eighteth part of a paper rouble. It is equal in value to about three-fourths of a cent. Copenhagen (ko-pen-higen: D an ish Kribben-baren, mer-chants' haven), the capital of Denmark, of Lealand, a smaller portion on the north point of the island of Amager, with a branch of the sea forming the har-bor between them. The old fortifications, which formerly separated the city from is a converted into promenades, and a

of a paper rouble. It is equal in value of a paper rouble. It is equal in value to about three-fourths of a cent. Copenhagen (ko-pen-hagen; D an-ish Kibbenkaw, mer-chants' haven), the capital of Denmark, on the Sound, the larger and older por-tion of it on the cast side of the Island of Zealand, a smaller portion on the north point of the island of Amager, with a branch of the sea forming the har-bor between them. The old fortifications, which formerly separated the city from its extensive suburbs, have been leveled and converted into promenades, and a modern system of fortifications con-structed on a grand scale, far beyond the astronghold. The city is mostly well that the motions of the heavenly bodies build mers are forwing the har-structed on a grand scale, far beyond the stronghold. The city is mostly well that the motions of the heavenly bodies build mers are the royal palace of Rosen-borg with many antiques and precious articles; the Amalienborg, consisting properly speaking, of four palaces, one the center round which the earth and of them the usual residence of the sov-treing; the palace of Charlottenborg, mow the repository of the Academy of Arts: the Royal Library, containing 550,000 volumes and 25,000 manuscripts;

**Copernicus** Thorwaldsen's Museum, containing a great many of the scuiptor's works; the university buildings, the Vor Frue kirke, the arsenal, etc. The univer-sity, founded by Christian I in 1478, has over 2000 students, and a library of 800,000 volumes. The museum of North-ern antiquities and the ethnographic museum, founded in 1892, are unrivaled of their kind. The harbor is safe and commodious. Copenhagen is the princi-pal station of the Danish fleet and the center of the commerce of Denmark. It carries on an active trade with Norway, Sweden, Russia and Germany, and in particular with Britain, the principal exports being grain, butter, cheese, beef, pork, cattle, horses, hides, etc. It has foundries and machine-works, extensive abipyards, woolen and cotton mills, por-celain works, breweries, distilleries, etc., and produces also watches, clocks, plano-fortes, etc. Sugar-refining and tanning are carried on. Copenhagen is first men-tioned as a fishing hamlet in 1043. In 1443 it was made the capital of Den-mark. It has occasionally suffered much from fires and from hostile attacks, the most disastrous being the bombardment by the British from the 2/d to the 5th of September, 1807. In 1801 the Daniah fleet was here defeated by Sir Hyde l'arker and Nelson. The environs in some parts are very fine. Pop. with sub-urbs, in 1911, 559,388. **Copepoda** (ko-pep'oda), an order of are defeated and marine crustacea, so named because their five pairs of feet are mostly used for swimming ((Gr.

#### Copernicus

# Copiapó

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#### Copperas

**Copperas** wooden pole. The quality is then tested, and, if found satisfactory, the copper is cast into ingots. In extracting the metal from pyrics by the wet process, the ore is first roasted to get rid of the region of sulphur, then the calcined residue, still containing sulphur, is mixed with common salt, ground and bottom of sulphur, then the converted into chloride, part of which volatilizes, but is condensed along with argentic and other substances, by pas-sage through flues and water-condensers. After some hours the calcined mixture is raked out of the ovens, cooled, and transferred to tanks, where it is ex-hausted by successive treatment with water. The solution, containing chloride of copper, sulphate and chloride of so-dium, and iron salts, is next heated along with scrap-iron. Copper precipitates in form of a ruddy, lustrons, tolerably compart mass, with a crystalline appear-ance, and mixed with metallic iron and drained, and then rendered compact by hen oxide of iron forms, and the cop-per, when jadgel sufficiently pure, is min into molds. Afterwards this crude usual way, and the slags are employed as in the Welsh process. Some of the usual way, and the slags are of considerably opper dist, is refined and toughened in the usual way, and the slags are of considerable mortance, c. g., bronze, an alloy com-portance, c. g., bronze, an alloy com-poses. In sheets it is used for sheathing the bottoms of ships, covering roofs and stills of a large size, etc. It is also used poses. In sheets it is used for sheathing the bottoms of ships, covering roofs and domes, the constructing of boilers and stills of a large size, etc. It is also used in electrotyping and engraving, for vari-ous household utensils and fittings; but its use for household utensils is by no means free from danger on account of the action of agids on it which postdang tenmeans free from danger on account of the action of acids on it, which produces ver-digris. As it is one of the best conductors of electricity, it is now largely employed for this purpose, especially in conflucting the powerful currents used in power

transmission. **Copperas** (k o p'e-r a s), sulphate of iron, or green vitriol (FeS-taste and of a fine green color. When serve for a wood of small growth, or con-exposed to the air it assumes a brown-ish hue. It is much used in dycing black and in making ink, and in medicine as a 15-315---3

usually made by the decomposition of iron pyrites

**Copper Glance** (Cu,S), a copper ore of a lead or iron-gray color. It contains a high percentage

gray color. It contains a high percentage of copper, and abounds in Cornwall, Eng-land, and in many European countries. **Copperhead**, a venomous North Amer-trodon contortrix of the rattlesnake fam-ily, of the same genus as the water-moccasin, but it is not aquatic. While it has no rattle, its bite is as deadly as that of any snake of its size.

of any snake of its size. **Copperheads**, an epithet applied to pacifists and disloyal Northerners during the Civil War. The Obioans are given credit for the first use of the term, probably having in mind the characteristics of the snake of that name. The copperhead snake hides in tall grass or burks in cremines of rocks and strikes The copperhead snake notes in tail grass or lurks in crannics of rocks and strikes without a previous hint of his animosity. He never comes out into the open. Sim-ilar traitorous characteristics were suspected in the pacifist, hence the transfer of the title. During the European war the epithet was revived and applied to those who did not believe in carrying the war to a military conclusion.

Coppermine River, (kop'er-min)

**coppermine Kiver**, (kop'er-min), a river of British North America, which falls, after a course of about 250 miles, into the Arc-tic Ocean, in lat. 68° N. : long. 116° w. **Copper-nickel**, or KUPFERNICKEL, an ore of nickel, an alloy of nickel and arsenic, containing about 60 of the former and 40 of the latter, of copper color, found in the mines of Westphalia and elsewhere. It often accompanies cobalt and silver ores. Called also niccolite.

Copper-plate, a polished plate of lines of some drawing or design are en-graved or etched to be printed from; also a print or impression from such a plate. Copper Pyrites (pi-ri-tez), or yel-low copper ore, a

double sulphide of copper and iron, com-posed in equal parts of copper, sulphur and iron. It occurs in metalliferous veins and is the commonest of the ores of copper.

the Pacific islands. **Coprolites** (kop'rō-līts), the term originally applied to the fossil excrements of extinct animals, chiefly lizards or sauroid fishes. They resemble oblong pebbles, and are found mostly in the Lias and Coal Measures. They consist chiefly of phosphates of calcium and magnesium, and the carbon-ates of the same metals, and organic matter, and as the fertilizing properties of these are well known, coprolites have been largely used as a manure. For this purpose they are reduced to powder and used as ground bones, or treated with sulphuric acid, so as to form super-phosphate of lime.

erable article of commerce in many of What is called the Coptic language is the Pacific islands. Coprolites (kop'rō-līts), the term its place. It is still used, however, m fossil excrements of extinct animals, It is regarded as the direct descendant chiefly lizards or sauroid fishes. They of the ancient sacred language of the resemble oblong pebbles, and are found Egyptians. There is a toterably abun-mostly in the Lias and Coal Measures. dant Coptic Christian literature, chiefly They consist chiefly of phosphates of lives of saints, homiles, etc. It is calcium and magnesium, and the carbon- written in what is substantially the ates of the same metals, and organic Greek alphabet, with some additional matter, and as the fertilizing properties letters.

# Copyright

of copyright proprietor.) Two copies of the best edition of the work must then be forwarded to the Copyright Office, Li-brary of Congress, Washington, with an application for registration and a money order for the statutory registration fee of \$1. As regards books or periodicals in the English language, it is necessary that the type shall be set, the electrotypes made, and the printing and binding wholly performed within the United States in order that advantage may be taken of her copyright law. The requirements also ex-tend, in general, to the illustrations of a book, and to separate lithographs or photo-engravings. The work, however, may be first published in another country provided it is entered in terms of the United States law within a period vary-ing from thirty to sixty days. Works not in the English language may be printed and bound abroad, and yet be eligible for copyright here.

and bound abroad, and yet be eligible for copyright here. In 1885-86 a convention was held at Berne between representatives of a large number of nations for the purpose of con-sidering the question of international copyright. As a result of their delibera-tion an agreement was reached whereby a work copyrighted in one country should receive the same privileges in all. In tion an agreement was reached whereby a work copyrighted in one country should receive the same privileges in all. In 1969) a congress held at Berlin proposed that the uniform term of the life of the author and fifty years should be adopted by all the parties to the Berne convention. Another provision prevented the United States from acceding, as at that time all works (now works in the English lan-guage only) had to be manufactured here, in order to obtain the privilege of copy-right. The act of 1960, however, enables copyright agreements to be entered into with other countries, and the existence of such an agreement with Britain practi-cally enables books manufactured in the United States to obtain all the heneits of the Berne Convention. The United States has also copyright agreements with a number of other countries. The remedy for an inferimencement

a number of other countries. The remedy for an infringement of copyright is an action of damages against the infringer.

**Coquelin** (kok-lan), BÉNOIT CON-STANT, a French actor, born at Boulogne-sur-Mer in 1841; died in 1909). Ile made a successful first ap-pearance in 1860 at the Théâtre Fran-cais and quickly rose to the head of his profession, excelling in light comedy and melodrama.

Coquetta Bark (ko-ket'a), a name given to the bark of Cinchona lancifolia, which contains quinine.

Coquillanut (ko-kwil'la), the seed of the piassava or piscaba palm (Attaléa funiféra), one of the cocoanut group, a native of Brazil. The nuts are 3 or 4 inches long, oval, of a rich brown color and very hard, and are used in turnery for making umbrella-nandles, etc.

used in turnery for making unorena-nandles, etc. Coquimbo (ko-kim'bö), or LA SE-capital of the province of Coquimbo, stands near the sea, on a river of the same name. It is the see of a bishop. Pop. 16,161.—Postro Coquimbo, the port of the above, from which it is distant 7 miles to the s. w., has smelting works and a large export trade, chiefly in copper and the precious metals. Pop. 6270. -The province is rich in copper, silver, gold, and other metals, and is mountainous. Pop. 165,000. Coquito (kö-kë'tõ), the Jubora spec-tabilis, a very beautiful palm of Chile, allied to the cocoanut palm, growing to the height of 40 to 50 feet, and yielding a rich, sweet sap which when boiled is called palm-honey. Coracias. See Rollers.

Coracias. See Rollers.

**Coracle** (kor'a-kl), a small boat or cance of oval form and made of wickerwork covered with skins. It was used by the ancient Britons, and something similar is still in use among Welsh fishermen and on the Irish laker. **Coracoid Bone** (ker'a-koid), a bone in birds joining the sternum and shoulder-bone, and giving support to the wing. In manumals it is represented by the coracoid process of the scannala. the scapula.

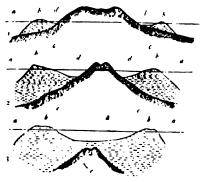
**Coral** (kor'al), the name a p lied to the scapula. **Coral** (kor'al), the name a p lied to tures secreted by many of the Artinozoa (sea-anemones, etc.) which form one of the divisions of the coelenterate zoo-phytes, and also applied to the anima's themselves. Two kinds of corals are dis-tiousished by naturalists, aclerodermic and sclerobasic, or those in which the calcareous skeleton is developed in the walls of the body, as in the reef-build-ing corals, and those in which (as in

the red coral of commerce) the skeleton is external or cuticular. Reproduction the red coral of commerce) the skeleton is external or cutcular. Heproduction takes place by ova. but chiefly by bud-ing, the new individual remaining in organic union with the old. The coral masses grow not merely by the multipli-cation of individuals, but by the in-



Formation of Coral Reefs, according to Darwin.

Formation of Coral Reefs, according to Darwi crease in height of each of the latter, which, as they grow, become divided transversely by partitions. The animal, distended with ova, collapses on their discharge, and thus becomes too small for the cup which it formerly occupied; it cuts off the waste space by a hori-zontal layer of coral, and the repetition of this process gradually adds to the height of the mass. It is in this way that the coral reefs and islands, occur-ring in such abundance in the Pacific, the Indian Ocean, and the Red Sea, are built up—works of such stupendous and astonishing bulk when compared with the tiny creatures that produce them.



#### STRUCTURE OF CORAL REEFS.

1. Fringing-reef; 2. Barrier-reefs; 3. Atoll. a. Sea-level; b. Coral-reefs; c. Primitive land; d. Portion of sea within the reef, forming a channel or lagoon. These coral reefs appear under three principal types, namely the fringing

COTAL FISNES
reef the barrier reef, and stoll or lagoon reef. According to Darwin's theory, the latter two are merely developments of the first. The fringing reef on the margin, say, of a South Sea island (see a in the figure) is the work of corals living near the shore. This island is supposed gradually to subside into the sea. but so slowly as to allow the coral polyps, which cannot exist at a greater depth than between 20 and 30 fathoms from the surface, to add to the height of the reef and keep themselves always at the same level. Thus, in the course of time, as the island sinks in the corstantly receding margin, the corstantly receding margin, the constantly receding margin the suffice, way the barrier reef is formed (as in b). But should the island continue to sink till it disappear altogether, the reef is then left as a buge circle enclosing a lagoon and constituting the atoll (c). By accretions of various kinds this finally rises above the surface of the sea, is taken possession of by a tropical vegetation, and at length becomes the habitation of man. Darwin's theory is by many not considered satisfactory, however, and these offer an explanation when the process of subsidence.

plantion of the formation of the coral reefs without the process of subsid-ence. The coral of commerce is the produc-tion of various polyps, and is of differ-ent colors and internal structure. The red, pink, and black sorts are the most highly prized. The red coral has a branching, shrub-like form, and, with other kinds, is found abundantly in the Mediterranean. The coral fishery, as it is called, is carried on in various parts of the Mediterranean. the principal locali-ties being the southwest coast of Corsica. where the finest quality is found, the coast of South Italy, and the north coast of Africa (Algeria and Tunis). The raw coral is wrought chiefly in Leghorn. Genoa and Naples. The coral is brought up from the bottom by means of net-work bags with wide meshes, attached to crossbeams of wood that are let down from a vessel by a line. Italy takes the leading part both in fishing for coral and in its preparation for the market. Coral in its preparation for the market. Coral is capable of taking a good polish, but is not susceptible of receiving the fuer execution of a gem. In composition it consists chiefly of carbonate of lime.

Coral Fishes, a name given to sev-

# Coralline

genera, belonging to the Chatodontida. They are found in all tropical seas, es-pecially about coral reefs, and are all brilliantly colored. The most important is the Holooenthus important for the 'em-peror of Japan,' which measures about 15 inches in length, and is the most es-teemed of all the Indo-Pacific fishes. **Coralline** (kor'al-in), a term popu-larly applied both to sea-weed with rigid, calcareous fronds and to many of the zoöphytes. **Coralline** an orange-red color, pre-

Coralline, an orange-red color, pre-monia at about 300° Fahr. upon rosolic acid, or upon the washed residue of the action of a mixture of sulphuric, ox-alic, and carbolic acids. It is used for dyeing silk, and is also printed upon cotton.

**Coral Rag**, in geology, the highest member of the middle Oölitic series—a variety of limestone containing an abundance of petrified corals, occurring in some parts of England.

Coral Root. See Dentaria.

Coral Sea, part of the Pacific on the northeast of Australia, be-tween it and the Solomon Islands and the New Hebrides.

the New Hebrides. Coral Snake, a genus of small veno-family as the cobra. The typical spe-cies is found in woods and thickets in South America. Coral-tree, trees and shrubs of the genus Erythrins, natives of Africa and America, with trifolioate leaves and beautiful scarlet spikes of papilionaceous

America, with trifolioate leaves and beautiful scarlet spikes of papilionaceous flowers.

See Coronach. Coranach.

Cor Anglais (kor-än-glä; French, English horn'), a wind instrument of the reed kind, simi-lar to the oboe, and possessing a com-pass of like extent, but of lower pitch. Its compass is from F fourth line in the bass to B flat above the treble staff.

stan. Coraopolis (kor-a-op'o-lis), a borough of Allegheny Co., Penn-sylvania, 10 miles N. w. of Pittsburgh, in a gas and oil field. It has steel and glass plants. Pop. (1920) 6162. Corato (ko-rá'tö), a town of S. Italy; province Bari. Pop. 41.573. Corbeil (kor-bāy), a town of France, dep. Seine-et-Oise, where the Easonne enters the Seine; various manu-factures. Pop. 9756.

#### Corday D'Armans

(kor'bel), in architecture, a piece of stone, wood, or iron Corbel projecting from the vertical face of a vertical inc. wall, to support some superincum-bent mass. Cor-bels are of a great variety of forms "d a re or n abels are variety of 1012 and are orna-mented in many mented in many mented in



sometimes used in Corbel, Castor Chur rows to support a Northamptonship projecting course called a corbel-table. Corbel, Castor Church Northamptonshire.



Corbel-table.

Corbie Steps (kor'bi), in architec-ture, steps into which the sides of gables from the eaves to the apex are broken. They are common in old Scotch architecture, into which they were probably introduced from l'rance.

Corchorus (kor'ko-rus), the genus of plants to which jute be-longs, order Tiliacese (the lime-tree). They are verbs or small shrubs with serrated lea'es and small, yellow flowers. See Jute.

See Jate. Corcoran (kor'kö-ran), WILLIAM WILSON, banker, born in Georgetown, District of Columbia, in 1708. He engaged in the banking busi-ness, accumulated a large fortune. Re-tiring from business in 1854, plans of benevolence engaged him till his death in 1880. His charities are estimated to ex-ceed \$5,000,000. He founded the Cor-coran Art Gallery at Washington, a beautiful white marble temple containing aplendid oil paintings. Cordage (kor'dāj), this word signi-fies all sizes of twine and in stricter usage it is confined to ropes

rupe in its comprehensive sense, though in stricter usage it is confined to ropes and cables from half an inch diameter upwards. The materials used in making cordage are hemp, flax, manila, jute, and other plant fibers.

other plant fibers. **Corday D'Armans** (k o r-d ā-d l r-māņ), M A BIE ANNE CHARLOTTE, commonly called Charlotte Corday, was horn in Norman-dy in 1768, of a family which counted the poet Corneille among its ancestors. Her lover, an officer in the garrison of Caen, was accused by Marat as a con-

# Cordele

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#### Corea

Corelli

forming a gentle slope on the west side, Russia, Japan made this country a base which, being watered by the principal of operations, established a protectorate rivers of the country, is exceedingly fer- over it, and soon after the close of hos-tile. In the north the only grain that tilities practically annexed it in Novem-can be grown is barley; but in the south, ber, 1905, by making the Corean govern-wheat, cotton, rice, millet and hemp ment accede to the protocol of a treaty are grown extensively. The ginseng transferring all diplomatic business from root is a production greatly valued in Seoul to Tokio, and setting up a Japan-China and Japan. The domestic ani- ese governor-general's office in the Corean mals are oxen, pigs, goats, dogs and capitol. The annexation was completed

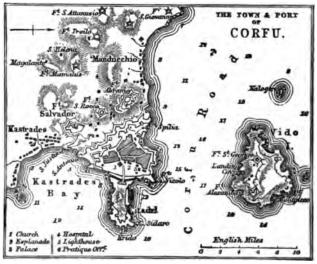


Korean Hats.

Korean Hata. cats, and a small race of horses. Oxen in August, 1910, the Corean king being only are used for agricultural labors, dethroned and the country reduced to the horse being reserved expressly for the status of a province of Japan. As wolves and sables are abundant. The manufactures are, generally speaking. rude, and mostly contined to tissues of hemp and cotton, silk, paper and pot-tery. The peninsula abounds in min-erals, gold, silver, iron, copper, lead and coal, and the natives show much artistic skill in the art of working metals. The early records of Corea carry us hack to 1122 a.c. Within recent years, while practically independent, it has been tributary to China, while Japan claimed rights there arising from ancient con-quests. These conflicting claims led to war between Japan and China in 1594, the result being that Corea was released from Chinese suzerainty. In her was with

Corfu

works of great popularity were produced. Uer works are deeply tinged with mystical and psychical views. Corfu (kor'fö; anciently Corcy'ra), a riaria myrtifolia is a shrub inhabiting the Grrek island in the Mediterra- south of Europe and employed by dyers nean, the most northerly of the Ionian for staining black, and also used in Islands, at the mouth of the Adriatic, tanning, and hence called tanner's sumach. near the coast of Albania, about 40 miles long, and from 15 to 20 wide; square miles, 272. The surface rises at one point to the height of 3000 feet, the of the Corigliano, near the site of the scenery is beautiful, the climate pleasant ancient Sybaris, of which no vestiges and healthy, the soil fertile. Oranges, remain. Pop. 13,272.



citrons, grapes, honey, wax, oil and salt are abundant. A Corinthian colony settled in the island in the eighth century R.C. The Venetians possessed Corfu from 1386 to 1797. the British from 1815 to 1844. Pop. 140.757.—CORFV, the capital is finely situated on a promontory, which terminates in a huge insulated rock 500 B.C.), whom she is said to have con-crowned by the citadel: the streets are Italian in style; chief edifices, the cathe-dral, government palace, and Ionian Acad-emy. There is a good harbor and con-siderable trade. Pop. 18.581. Coriander (kor-ian'der; Coriandrum satirum), an umbellifer-ous plant, native of Italy, and cultivated in other parts of Europe. The whole plant has an unpleasant smell, but the print, improperly called seed, is very sgreeable and aromatic when dry. It cookery and confectionery.

# Corinth

nifecence. It had two harbors, Lechsum on the west side of the isthmus, on what is now the Gulf of Corinth or Lepanto, and Cenchress, on the Gulf of Athens or Algina (anc. Ssronio Gulf), Near Corinth were held the Isthmian games. Besides being one of the most weightical viciasitades Corinth became the head of the Achsan League, and was conquered and destroyed by the Roman consul Mummius, 146 B.C. Julius Cesar, about a hundred years later, rebuilt it; but its commerce could not be restored, though it became a place of note and importance. St. Paul lived here a year and a half, and two of his epistles are addressed to the Corinthians (see be-low).—New Coristh is a village on the shore of the gulf, several miles N. W. from the site of ancient Corinth; it is the seat of an archbishop. Pop. 4300. Corinth, GULF OF, or GULF OF LE-Corinth, FANTO, a beautiful inlet of the Mediterranean, about 80 miles long, between the Peloponnesus and Northern Greece.

Greece.

Greece. Corinth, INTHMUS OF, the isthmus (Peloponnesus) with Northern Greece, varying in width from 4 to 8 miles. A canal, begun in 1882 and about 4 miles long, was opened on August 6, 1893, across the isthmus, and now enables vesacross the isthmus, and now ensures ves-sels to sail from the Archipelago to the Adriatic without rounding Cape Matapan. Corinthian Order (ko-rin'thi-an). that order of Grecian architecture



among the Romans it was much em-

**barbors.** Lechsom among the Romans it was much emode the isthmus, on ployed. Guif of Corinth or contributions. EFISTLES TO THE, two results of the Guif of ame, Service Gwif). The contribution of the control at Corinth about A.D. 57 or mag one of the most ine writings of St. Faul by even the amost of the most ine writings of St. Faul by even the two the church at Corinth about A.D. 57 or a Loague, and was need to be church at Corinth about A.D. 57 or a Loague, and was need to be church at Corinth about A.D. 57 or a Loague, and was need the apostolic church. They are most instructed as genumer to be an anony of the restored of the constitution, parties, and for a church at the constitution, parties, and the constitution, parties, and for a church. The visition of the restored church at constitution, parties, and place of note and church. Coriolanus (k & -ti-ol a'n us), the visition of the restored church at constitution to the the terms of the kingdom of Corinthians (see be the Volsci, was taken almost solely by his certions. Ille was subsequently several miles to the torse the or the tribuneship; and in particular of the tribuneship; and and in particular of the cities of the conter or partice upon them to go to war and now enables ver the Volsci, the bitterest enemies of Kome, and prevailed upon them to go to war analing overtures for parce, till at length the tears of Veturia his mother, and volumai his wife, when they appared at the head of the Roman mater of the cities of the tribuneship; and volumai his wife, when they appared at the head of the Roman mater of the conter of the story of Coriolanus, which is now regarded as legendary, form she subject characteristic feasting for the south of the south of the story of Coriolanus, which is now regarded as legendary, form the subject of one of Shakesper's plays. The orlinary is the story of the order and the south of the story of coriolanus, which is now regarded as legendary, form the subject of the corine, the story of coriolanus, which is now regarded as

Corinthian Order. before the time of Alexander the Great; line, an island within Cork harbor. Pop.

Cork

Cork 76.122.—The COUNTY is the most south-erly and the largest in Ireland, having an area of 2800 square miles, of which less than a fourth is under crops. The west part is mountainous, the north and east very fertile. The coast is indented with numerous bays and inlets, of which the more important are Bantry Bay, Kinsale and Cork harbors. The climate is remarkably mild, though moist. The county is watered by the Bandon, Lee and Blackwater. Cattle, sheep, pigs and quantities of butter are exported. The Fsheries are important. The county has seven political divisions, each sending a member to Parliament. The county town is Cork; other towns are Queens-town, Fermey, Youghal, Bandon, Mal-low and Kinsale. Pop. 404,611. Cork, of oak (*Quercus suber*) which grows in Spain, Portugal and other southern parts of Europe and in the north of Africa, and is distinguished by the great thickness and sponginess of its bark, and waved. The outer bark falls of of itself if let alone, but for com-mercial purposes it is stripped off when judged sufficiently matured, this being when the tree has reached the age of from fifteen to thirty years. In the course of cight or nine years, or even less, the same tree will yield another supply of cork of better quality, and the removal of this outer bark is said to be henclicial, the trees thus stripped reaching the age of 150 years or more. The bark is removed by a kind of ax, parallel cuts being car-united by others in a longitudinal direc-tion, so as to produce oblong sheets of bark. Care must be taken not to cut into the inner bark, or the tree would be united by others in a longitudinal direc-tion, so as to produce oblong sheets of bark. Care must be taken not to cut into the inner bark, or the tree would be killed. The pieces of cork are flattened out by heat or by weights, and are slightly charred on the surface to close the pores. Cork is light, impervious to water, and by pressure can be greatly reduced in bulk, returning again to its original size. These qualities render it peculiarly serv-iceable for the stopping of vessels of dif-ferent kinds, for floats, buoys, swiaming belts or jackets, artificial limbs, etc. Corks for bottles are cut either by hand or by means of a machine. The best corks are cut acress the grain. **Cork** Even or See Bonh

Cork, LAL OF. See Boyle.

Corleone (kor-lå-Ö'nå), a town of Palermo. Pop. 14,803. Corliss (kor'lis), GEOBGE HENEY, in-ventor, was born in Easton, New York, in 1817. The construction of stationary steam engines has been revolutionized by his inprovements, he having invented many ingenious devices. A single engine made by him moved all the machinery in the Centennial Exhi-bition of 1876. He died in 1888. Corm (korm), the dilated basis of the stem in monocotyledonous plants, which intervenes between the roots and the first buds, and forms the reproductive portion of the stem of such plants. It differs from a bulb in being solid and from a tuber in its oval figure. Examples are the so-called 'root' of the arum and that of the crocus. Cormorant (kormo-rant) from

that of the crocus. **Cormorant** (kormö-rant) from French, cormoran, L. corcus marinus, a sea-crow), the name of several large web-footed birds of the pelican family, or forming a family by themselves. They have a longish and strongly-hooked bill, long neck, short wings, and rather long, rounded tail; all



Cork, Fossu, a kind of mineral, a Harris' Cormorant (Nauopterum Herris). Corking-pin, a pin of a large size, the toes are united by a web, and, though Corking-pin, a pin of a large size, the toes are united by a web, and, though ing a lady's load dress.





## Cormus

dark. The common cormorant of Europe (*Phalacrocoras carbo*) is larger than a goose, but with smaller wings. It occupies cliffs by the sca, feeds on fish, and is ex-tremely voracious. It dives and swims with great power, and pursues its prey beneath the surface of the water, often to a great depth. Among the Chinese cormo-rants have long been trained to fish for man. At first a ring is placed on the lower part of the bird's neck to prevent it swallowing the prey, and in time it learns to deliver the fish to its master without such a precaution being necessary. An-other European cormorant is the green cormorant or shag (*P. graculus*). It is such a precaution being necessary. An other European cormorant is the green cormorant or shag (*P. graculus*). It is smaller than the common cormorant. Both these species are found on the east-ern coasts of America. Great numbers of common cormorants breed on the Labrador count. In winter it considerable comes to common cormorants breed on the Labrador coast. In winter it occasionally comes to New Jersey. The double-created cormo-rant, commonly called shag, inhabits the whole of North America, both interior and on the seacoast, in this differing from all other species. Its length is thirty-three mehes. The Mexican cormorant inhabits the Southern States and southward. Palla's cormorant is found in Alaska, and is one of the largest of the species. Brandt's cormorant is common to the Pacific coast. The violet-green cormorant is also a Pacific coast bird, reaching to California. Its length is twenty-eight inches. A variety called Florida cormo-rant, as well as the white-crested, Baird's and red-faced, are enumerated as North California. Its length is twenty-eight its principal consumption in the United inches. A variety called Florida cormo-rant, as well as the white-crested, Baird's which purpose three-fourths of the crop and red-faced, are enumerated as North is used. It is used also in industrial pro-American birds. They are surprisingly ducts, as whiskey, starch and glucose, active under water and have a proverbial which consume about one fifth of the crop. reputation for voracity.

The common cormorant of Europe acrocoras carbo) is larger than a but with smaller wings. It occupies by the sca, feeds on fish, and is ex-y voracious. It dives and swims great power, and pursues its prey areat power, and pursues its prey the the surface of the water, often to have long been trained to fish for have long been trained to fish for bart of the bird's neck to prevent it wing the prey, and in time it learns wing the prey. And in time it learns wing the prey, and in time it learns wing the prey. And in time it learns wing the prey, and in time it learns wing the prey. The double-created cormo-tant or shag (P. gracilus). It is wheat. It is adapted to a wide range of m cormorants breed on the Labrador in cormorants breed on the Labrador is sectors, in this differing from all species. Its length is thirty-three . The Mexican cormorant inhabits southern States and southward, e of the largest of the species. the coust. The violet-green cormorant is found in Alaska, and c of the largest of the species. the southern countries of Spanish America it is the chief cereal used. The plant is indigenous cultivation and value is one of the gifts of the ladians to the white man. From this country its cultivation has extended to the southern countries of Europe, and it is largely used for food in Italy and Roumania, as well as in Expyt and India. Its principal consumption in the U nited States is as feed for hoss and cattle, for

reoutation for voracity.
Cormus (kormus). See Bulb.
Corn (Fr. corne, L. cornu, a horn), a hardened portion of the cua hardened portion of the cuAmerica, and of these the dent type is the fost according from pressure crop in North America in its several hundrer tubbing. Corns are generally found dred varieties. Flint is the second in imeritation on the sides of the foot, etics; it is the type most common in Cancer the on the ball. They appear at ada, chiefly in Ontario; it is cultivated first as small, dark points in the hard- in the New England States, New York, ened skin, and in this state stimulants or Pennsylvania and New Jersey; certain each with great care. Perhaps the most according to size and maturity, into early, efficacieus remody for corns is the appli-medium and late maturing varieties, and is further distinguished for color, as yelmorning, or relieving the pressure by low, white, white cap yellow and mixed means of a se all tuft of cotton placed dent varieties. In the eastern section the provailing varieties are Pride of the rowalling varieties are Pride of the most according to size and many strains of white and is anplied specifically to the principal dent varieties. The varieties most raised in point is the generic term for all kinds North. Early Huron Dent, Funk's Go-The types of corn are dent, flint, sweet,

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times as much as when used for human food. One great drawback to the exporta-tion of corn as human food, at present, is the general ignorance in Europe of its value in this respect, and of how to handle it, nor are there suitable mills for grinding it, and the meal cannot itself be exported in large q, antities because it will 'heat' quickly and thus be unfit for food. It is not improbable that under the stress of war the ignorance of its value and the lack of grinding facilities will disappear, and that the day is not far distant when vast quantities of our corn will be shipped to foreign markets to add to the food supply of the people. According to esti-mates of the International Institute of

Agriculture in Rome, Italy, the world crop-of production of corn for 1916 was: United States, 2,865,900,000 bushels; Japan, 4,102,000 bushels; Switzerland, 157,000. Total for three countries, 2,870,159,000 bushels.

United States, 2,855,900,000 bushels; Japan, 4,102,000 bushels; Switzerland, 157,000. Total for three countries, 2,870,159,000 bushels. Corn requires for its highest production warm, deep and loamy soils with plenty of moisture. The critical period in the great corn belt is during July and August, during which the rainfall determine-largely the season's yield; it is found that between the average yield of corn and the July rains there is a close correlation. Poor land is not suitable for corn, the growth of stalk requiring abundant plant food. Nor can it be grown continuously without diminishing yields on the same soil, no matter what manure or fertilizer is applied. A rotation of crops is es-sential to the maintenance of good yield. From four to seven years are the periods of rotation usual, but in the rotation at least one leguminous crop should be planted, but the crops for rotation vary ac-cording to their value in different sections. Corn succeeds best on sod land. Plowing for corn is done either in fall, winter or spring in many sections preferably in the fall. Deep plowing has great advantages and disking and harrowing are of the highest importance to secure a loose and friable soil. The character and quantity of fertilizer best adapted depend on the nature and condition of the soil and other considerations, but stable manure is particularly valuable, second to which is a complete fertilizer having phosphories and disking and harrowing are of the highest importance to secure a loose and fraible soil. The character and quantity of fertilizer best adapted depend on the nature and condition of the soil and other considerations, but stable manure is particularly valuable, second to which is a complete fertilizer baving phosphories and do to the stable manure also promotes an increased yield. Planting should not be done till the soil is warm enough to graninate the seed quickly, the time vary-ing in different localities. A wet cold soil with out the seed. It may in general be said that when the leaves of

Corneille

results follow check-rowing, which admits of more thorough cultivation. In grow-ing for grain three kernels to the hill yield, perhaps, the best results, generally. Where the rainfall is abandant corn is frequently planted in furrows, with a lister, a double mold-board plow that simultaneously cuts a deep furrow, plants the kernel, and covers it with earth. In issue soils the grain is planted from 3 to 4 inches deep, according to surface mois-ture, and on wet, heavy soils, 1½ to 2 inches. The kernels should be regular in shape and in necessary, should be assorted in sizes so that the planter plates may be adjusted to pass the different sizes. This result may be obtained by using a seed-corn grader. Corn requires careful cultivation to destroy weeds, to conserve and to facili-tate the absorption of moisture and to nerate the soil. Deeper rooting of the plant is induced by deep cultivating which should not be repeated after the first cul-tivation, as injury to the plant roots is unavoidable. For the first or deep cultiva-tion, from four to five inches is generally

tration, as injury to the plant roots is unavoidable. For the first or deep cultiva-tion, from four to five inches is general; the later shallow cultivation is general; one to two inches deep. Cultivating is governed by the weed growth and the state of the soil surface. In the great corn belt the corn is in large part harvested direct from the stand-ing stalks, leaving the latter to waste, except it is pastured. In other sections the whole plant is harvested, three to four hundred are cut and put in shocks to cure properly, after which it is husked, in from three to six weeks after cutting, and the stacks reshocked to be removed to the barns, or stacked in rows as early as convenient, when sufficiently dry, for feed-ing during the winter. Shredding or chopping the stalks is economical, as the greater portion of the feeding value is thus utilized. greater portic thus utilized.

thus utilized. In storing corn it is desirable, after curing, to leave it in the ear for a time in a well-ventilated crib, protected from rats and mice. Corn shrinks considerably after storing in the crib, especially during the first month, a fact that bears im-portantly on the question of holding for market rises. Under an Act of Congress corn is classified into six grades, Nos. 1-6, according to the percentage of moisture, damaged kernels, foreign material, broken and cracked corn. Corn is the most valudamaged kernels, foreign material, broken and cracked corn. Corn is the most valu-able of the great feeding crops. Its se-lection and breeding is of great impor-rance, and careful labor in this way has secured largely increased yields of grain and varieties. The farm value of the corn crop of the United States for 1917 was

over four billion dollars, out of a gro farm output of twenty-one billions. So 800 Ensilage.

Ensilage. Cornacese (kor-na'se- $\tilde{\epsilon}$ ), a natural order of polypetalous exo-gens, consisting of about 100 species, one of them being the common European dog-wood. Several plants of this order are of service as tonics and for the cure of ague, and in America the bark of the Cornsi for l'eruvian bark. See also (corncl. Corn Aphides, aphides infesting the ears of corn, barley, oats and other grain, and sucking their juices, as the Aphis granaria, or wheat aphis. See Aphis.

**Corn-beetle**, a minute beetle, the **Corn-beetle**, *Cucajus testaceus*, the larva of which is often very destructive to stores of grain, particularly of wheat, in granation in granaries

to stores of grain, particularly of wheat, in granarics. Corn-cockle, a well-known weed and the state of the state of the state are purple flowers, very troublesome among crops of grain. Its seeds are said to be poisonous to poultry, swine, etc. Corn-crake, or LANDRAIL (Cress of bird of the order (Iralls or Waders and of the family Rallidss or rails. The crakes differ from the rails proper (Rallss) in having the bill shorter. The common crake of Britain is of a reddish-brown color. It lives in fields and mead-ows, and nestles and runs among the long grass. The name is expressive of its cry. It feeds on worms and insects. Cornea (kor'nd-a), the transparent portion of the anterior coat of the eye. This is destitute of blood-vessels, its nutriment being obtained from a system of lymph chambers. It is subject to certain diseased conditions, the most common occurrence. This results most often from injury, inflammation of the conjunctiva, disturbances in nutrition, etc. Inflammation of other portions of the eye may accompany ulceration and result in adhesion, closure of the cornea. A protru-sion of the cornea, known as staphylows, may follow. Corneille (kor-na-yé), Pirmer, the father of French tragedy

may follow. **Corneille** (kor-nā-yė), PIERAR, the father of French tragedy and elassical comedy, was born at Rouen in 1006, at which place his father was advocate-general. He began his dra-matic curver with comedy, and a series of vigorous dramas, Mélite (1629), *Clitandre, La Vewre, La Suirante, etc.*, announced the advent of a dramatist of

# Corneille

a high order. In 1635 he entered the field of tragedy with *Mcdea*; but it was not till the appearance of his next work, the famous *Cid*, that Corneille's claim to a place among the great tragic poets was recognized. The *Cid* was an imi-tation of a Spanish drama, and though gravely defective in the improbabilities of the plot and other respects, achieved an immense success by a certain sub-limity of sentiment and loftiness of ideal, which are the native characteris-tices of Corneille's poetry. After the *Cid* there appeared in rapid succession *Horace* tics of Corneille's poetry. After the Cid there appeared in rapid succession Horaco (1659); Cinna (1659), his masterpiece, according to Voltaire; and Polyeucte (1640), works which show Corneille's genius at its best. Many of his later pieces exhibit a marked decline. Be-sides his dramas he wrote some elegics, sonnets, epistles, etc., as well as three prose essays on dramatic poetry. As a dramatist his merits are loftiness of sentiment and conception, admirably ex-

with minute quantities of the oxides of iron, aluminium, and sometimes of other metals, and is used for seals, braceleta, necklaces and other articles. Cornelius (kor-né'li-us), PETEB VOX, a German painter, born at Düsseldorf in 1787; died in 1867. He early exhibited a taste for art, and studied the great masters, especially Raphael. In 1811 he went to Rome, where, in conjunction with Overbeck, Veit and other associates, he may be said to have founded a new school of German art, and revived freeco paint-ing in mitation of Michael Angelo and Raphael. He left Rome in 1819 for Düsseldorf, where he had been appointed director of the academy, but he soun settled in Munch to give his whole at-tention to the painting of the Glyptothek and the Ludwigskirche there. In three two great works he was assisted by his Munich pupils. In 1833 he made an-other visit to Rome, and in 1839 he visited Paris. In 1841 he was invited to Berlin by Frederick William IV, who entrusted him with the painting of the royal mausoleum or Campo Santo. The most celebrated cartoon in this series is the Four Riders of the Apocalyse. The series consists of twelve paintings, which have been engraved. Cornelius, a true representative of modern German thought, introduced into art a meta-physical and subjective element which is easily liable to be abused; and in his work grandeur of conception and eleva-tion of tone have to make up for the want of the finest natural effects. Cornelius Nepos, a Roman author fury B.C. the contemporary of Cicero and Catullus. The only extant work at-tion the him is a collection of short biographics, probably an abridgment of a work written by Nopos. These biogra-phosic, and popular editions of them are very numerous. Corneli (kor'nel), EZEA, an inventor, New York, in 1807. He aided Morse in sonnets, epistles, etc., as well as three and the Ludwigskirche there. In these proceeds escays on dramatic poetry. As a dramatic poetry. As a dramatic bit work is a sanisted by his presed in a hold and hereic style of Munich pupils. In 1833 he made an other visit to Rome, and in 1839 he made an other visit to Rome, and in 1839 he made an other visit to Rome, and in 1839 he made an other visit to Rome, and in 1839 he made an other visit to Rome, and in 1839 he made an other visit to Rome, and in 1839 he made an other visit to Rome, and in 1839 he made an other visit to Rome, and in 1839 he made an other visit to Berlin by Frederick William IV, who with the analyse, But in this to Berlin by Frederick William IV, who is the the same house in the utmost harmony. Theomas began to the fragments du Haserd (1647). His best trately is Ariane (1647). His is a dramatist of very scendary rank, labor, or tone have to make up for the same house in and cultivated, but wanting in original power. He died in 1634.
 Cornel (kor'nel), or CONNELAN There of the first sprice, distinguished by the hardness of his word, a native of Asia and the order of degwood, a tree or shrub of the order a normental plant and for its fruit in the American shrub, 5 to 10 feet high, come to 20 to 20 feet high.
 Cornelia (kor nellia), the daughter of the first telegraph line and subjective action of short to 20 feet high.
 Cornelia (kor nellia), the daughter of the first telegraph line and subjective scenet, born at Waschese in Maying the first telegraph line and subjective first telegraph line and subjective filled. Moree in the subjective filler and the first sprice, the first telegraph line and subjective filler and the telegraph line and subjective filler and the subjec



# **Cornell University**

Corn Laws

Governor of the State of New York. Chemung River, 12 miles N. w. of Elmira, Died in 1904. Cornell University, an educational New York Central railroads. It has the New York Central railroads. It has the vorld's largeet glass-manufacturing plant, Ithaca, New York, was established in large cut-glass concerns, foundries, rail-1967 with funds furnished from the in-road car shops, and manufactures of iron come of 900,000 acres of public land and clay products, candy, gloves, etc. allotted by congress to the State for this Coal mines are in the vicinity, and there purpose, and with a foundation of \$500,-is a large trade in lumber, dairy products, otoo presented by Ears Cornell. This etc. Pop. (1910) 13,730; (1920) 15,820. Cornish (kor'nish) Engine, a single-guent donationa. There are five general courses, including classics, literature and philosophy, science, engineering, archi-tecture, agriculture, etc. The medical chool is in New York City. Women are admitted on the same terms as men. wall, which died out in the eighteenth cencourses, including classics, literature and philosophy, science, engineering, archi-tecture, agriculture, etc. The medical school is in New York City. Women are admitted on the same terms as men. Cornet (kor'net), a wind-instrument of former times, originally



becomes, including classics, literature and philosophy, science, engineering, archidited on the same terms as men.
Cornet (korbet), a vind-instrument, or similar theory of former times, originality, and the same terms as men.
Cornet (korbet), a vind-instrument, curvilinear or series of former times, originality, which died out in the eighteenth centre of the same terms as men.
Cornet (korbet), a vind-instrument, in the same commonaly siven to we read, the or the same commonaly siven to we read, the or the same commonaly siven to diver the same and microstation of the same commonaly siven to creation statutes and microstation of the same terms as and the same commonaly siven to create the same and the probability of the same common to severate the price of wheat and its palaces and other edited in price of the same common to severate the price of wheat and the palaces and other edited in price of the same common to severate the price of wheat and the palaces and other edited in price of the same common to severate the price of wheat and the palaces and other edited in price of the same common to severate the price of wheat and the palaces and other edited in price of the same form all porticits were the price of wheat and the palaces and other edited in price of the same form and the palaces and other edited. This was the beginning were the price of wheat exportation and importing the bases of the finally Mus.
Cornerd, the induct the traves infilts of the induct the same common to severate the price of wheat exportation of the same terms of the same term of the same terms of the

the increase of population and ex-pansion of mechanical industries, to fall off in this respect, and in 1778 became permanently a grain-importing country. From this time the main efforts of the agricultural interest, largely represented in the Parliament and the ruling classes of the kingdom, were concentrated on obtaining the imposition of prohibitory duties on foreign grain. In 1804, for instance, in case the price of corn was below 63s, a prohibitory duty of 24s, 3d, was to be laid on what was imported; if between 63s, and 66s, a duty of 24s, 04d, was to be laid on what was the foreign grain allowed to pass at a nominal duty of 6d. With variations of more or less importance this sliding scale of prohibitory duties continued in force till 1846, when Sir Robert Peel, influenced by the corn law repeal agitation, and more especially by the Anti-Corn Law League, headed by Cobden and Bright, carried a measure repealing the duty on imported corn, ex-cept a nominal sum of 1s, per quarter, which also in 1869 was done away with, thus leaving the importation of corn en-tirely free. tirely free.

Corn Marigold (Chrusauthemum so-getum), a common weed in British cornfields, of a rich orange color.

Corn-moth, a small moth, the Tinča **Corn-moth**, a shall mote, the price which is exceedingly destructive to corn sheaves in the field, and to stored grain. from eating into the grains. Salt, fre-quent turning, and many expedients are employed to destroy the eggs.

Corno, MONTE. See Gran Sasso.

Corno, MONTE. See Gran Sasso. Corn Salad, Valcrianclla olitoria and genus, order Valerianacce, is extremely casy of cultivation, and can be obtained in the very first days of spring. V. oli-toria, called also lamb's lettuce, is a weak, succulent herb 6 to 12 inches high, used as a salad in early spring. Corn Sawfly (Cephus pygmarus), which prey upon wheat and other cer-cals. The female deposits her eggs in the stalk, where the larve of which prey upon wheat and other cer-cals. The female deposits her eggs in the stalk, where the larve live upon the interior of the straw and the nutri-tive juices of the plant. Corn-thrips, a minute species of grain crops, insinuating itself between the chaff and the unripe seed, and caus-ing the latter to shrivel by sucking the juice. It is barely a line long.

Cornucopia (kor-nů-kô'pi-a; L. Cornucopia (kor-nů-kô'pi-a; horn of plenty'), a wreathed horn filled to overflowing with fruit, flowers and grain; used av the symbol of plenty. Cornus (kor'nus), a genus of plants, of the nat. order Cornaces

ing with fruit, flowers and grain; used a the symbol of plenty. Cornus (korn'us), a genus of plants, (which see). Cornwall (korn'wal), a maritime ing the southwestern extremity of the island, bounded E. by Devonshire, and surrounded on all other sides by the sea; area, 1550 sq. miles or SGS.107 acrea. The constline is much broken. Between the north and south coasts is the promon-tory of Land's End, terminating in gran-ite cliffs about 60 feet high. Some of the other cliffs exceed 400 ft. in height. At Land's End terminate the bills of the Devonian Range, their highest summit in Cornwall being Brown Willy, 1368 feet. Granite and old red sandstone are the chief rocks. The rivers are numerous, but short. Much of the area. especially in the elevated districts, is barren moor-land. About a fifth is under the plow. The chief wealth of the county is in its minerals, especially its mines of copper and tin. though the value of both has diminished. Several mines exceed 350 fathoms in depth. In the Botallack copper mine, a few miles north of Land's End, the workings are carried below the sea. In addition to tin and copper there are, in comparatively small quantities, silver, lead, zinc, iron, man-ganese, antimony, cobalt and bismuth. There are also valuable deposits of kao-lin or china-clay. There are no mann-factures, but the fisheries, particularly of pilchard and mackerel, are valuable. Cornwall, with the Scilly Isles, seems to have been the Cassiterides or Tin Islands of antiquity. The natives long main-tained their independence against the Satons, and their country was spoken of as West Wales. Their language also long continued to be Celtic. (See Cor-ish Language.) The chief towns are Bodmin (county town), Penzance, Truvo and Falmouth (with Penzyn). The county gives the title Duke of Cornwall to the eldest son of the sovereign of Graat Britain, and forms a royal duch-the revenues of which belong to the Plack Prince in 1337. Pop. (1911) 328.13. Cornwall, a port and manufacturise.

Cornwall, a port and manufacturine town of Canada, province Ontario, on the north side of the St Lawrence, 67 miles above Montreal. Pop (5598.

## Cornwallis

**Cornwallis** (korn'wal-is), CHARLES, MARQUIS OF, son of the first Earl Cornwallis, born in 1738. Educated at Eton and Cambridge, he served in 1761 as an aide-de-camp in the Seven Years' war; was made col-onel of foot in 1766, and finally general. On the outbreak of the American war he sailed with his regiment, served with distinction under Howe and Clinton, and in 1780 was left in independent com-



#### Lord Cornwallis.

mand in South Carolina with 1000 men. He defeated Gen. Gates at Camden, 1780, and fought Gen. Greene at Guilford in 1781, but six months afterwards was be-sieged in Yorktown and compelled to surrender, October 19, 1781. This dis-aster trought an end to the war. In 1786 Lord Cornwallis went to India with the double appointment of com-mander-in-chief and governor-general, in-vaded Mysore in 1791, and obliged Tip-poo Saib to surrender much territory. Having returned to Britain, he was cre-ated a marquis (1794), appointed lord-lieutenant of Ireland, and again in 1805 governor-general of India. He died the following year. mand in South Carolina with 1000 men

following year. **Corn-weevil** (-wö'vl), a destructive insect which preys upon stored corn. There are various species: order Coleoptera, family Curculionide, genus Calandra. The Calandra granaria is a slender beetle of a dark-chestnut color about one-eighth of an inch long. It bores a hole and deposits its egg in-side of the grain, which is afterwards eaten to the husk by the grub. **Coro** (kô'ro), a sequent town of Vene-zuela, at one time a flourishing place, but now much decayed. Pop. 16-3

16-3

## **Coromandel** Coast

Corocore (kor'a-kör), a boat of the Indian Archipelago of vari-ous forms. That used in Celebes is pro-pelled by oars, and is often manned with sixty men. Others, as those used in the Moluccas, are masted vessels. Corody, CORBONY (kor'o-di), an allow-ing, anciently due to the king from an abbey or other religious house, for the sustenance of such of his servants as he thought good to place there for mainte-mance. Corodies were also retained by the private founders of religious houses and even granted to benefactors, and consisted in the right of sending a certain number of persons to be boarded at an abbey. Corolla (kö-rol'a), in botany, the por-tion of the flower inside the corolla sur-rounds the parts of furgification

rounds the parts of fructification and is composed of leaves called petals. When there are sev-eral free leaves eral free leaves it is called a *polypetalous* co-rolla, as in the rose; but when the petals are united by the margins into a c o n t i n uous structure it is called mononectcalled monopet-



a. Many petaled or leaved Corollas. b b. Single petaled or leaved Corollas.

called monoper-alows, or more peaked Corollas. bb, Single correctly gamo-petalows. It may generally be distin-guished from the calyx by the fineness of its texture and the gayness of its colors; but there are many exceptions. **Corollary** (koro-la-ri; in Latin corol-larium), in mathematics, a collateral conclusion, following from a proposition demonstrated.

a collateral continuous, and proposition demonstrated. **Corollifloræ** (kor-ol-i-flö'rě), one of the great subdivisions of exogenous plants, distinguished by the corolla being gamopetalous, inserted below the ovary, and by the stamens be-ing inserted on the corolla. The prim-rose, health, gentian, verbena, etc., are included in this division. **Coromandel Coast** (kor - ô-man'del; *Cholomandala*), the coast of the Indian Peninsula,

the east coast of the Indian Peninsula, Madras Presidency, or that portion of it between Palk Strait and the river Pen-nar. It is open, sandy, and has no secure harbors, and the surf renders landing difficult and often impossible except to the native catamaran.

## Coromandel Wood

the wood Coromandel Wood, **UOFOMANGEI WOOD**, The wood of *Diospyros hir-sūta*, a tree found in Ceylon. Its ground color is chocolate brown, with black stripes and marks; it is hard, turns well, and makes very handsome furni-ture. ture.

Corona (kō-rō'na; L. 'a crown')— (1) In astronomy, a halo or luminous circle round one of the heavenly luminous circle round one of the heavenly bodies; specifically the portion of the aureoia observed during total eclipses of the sun, which lies outside the chro-mosphere or region of colored promi-nences. It is supposed to be an outer portion of the solar atmosphere of ex-ceeding rarity. (2) In botany, an ap-pendage of the corolla in some flowers, coming, as it were, between the corolla and the stamens, well seen in the cup of the daffodil. (3) In architecture, the lower member of the projecting part of a cornice. cornice.

Coro'na Austra'lis (the 'south-ern crown'), one of Ptolemy's southern constellations, containing twelve stars. Coro'na Borea'lis (the 'northern crown'), one of

Ptolemy's northern constellations, con-

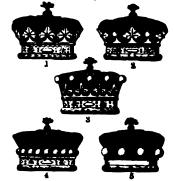
tonemy's northern constellations, con-taining twenty-one stars. **Coronach** (k or 'o - n a h), or CorA-NACH, a dirge or lamenta-tion for the dead formerly customary among the ('elts of Scotland and Ireland.

land. Coronado (kor-o-ná'do), VASQULZ DE, a Spanish explorer, born at Salamanca, about 1510. He went to Mexico and in 1540 was put in com-mand of an expedition to the north, with the hope of discovering and con-quering a rich kingdom in that direction. Coronado went as far north as Kansas, but failed in all his hopes and became insane from disappointment, dying about 1542. 1542.

This is people, and will conscientionally about the latest times, with great splender. The form of the coronation of George V, the portion of the sales defined in Parliament to rescind, in the latest times of George V, the portion of the sales defined time to the Roman Catholic him, however, to follow out the bent of the series of the sales defined the month the sale defined time to the salest times. The form of the coronation of George V, the portion with the interited from his father enabled time, however, to follow out the bent of his series of the sales defined the interited from his father enabled time to the latest of the salest times.

of faith. The Archbishop of Canterbury bir- puts the oath to the sovereign, who ind swears to govern according to the stat-ack utes of Parliament, to cause law and rns justice in mercy to be executed, and to maintain the Protestant religion. Coronellidæ (kor-o-nel'i-de), a wide-ly-spread family of non-or venomous serpents. It includes several nly genera, as Psammophylar and Coronella. the Coronella laria, the smooth snake, is a sees native of Britain.

Coronella laria, the smooth snake, is a native of Britain. Coroner (korö-ner), an official whose chief duty is to inquire into the cause of the death of persons killed or dying suddenly. The coroner's exami-nation is made in all cases with the aid of a jury, in sight of the body, and at the place where the death happened. If the body is not found he cannot sit. In the United States coroners are elected or appointed. They have no defined re-sponsibility, except in cases of crime, where they can cause arrests. Coronet (korö-net), such a variety of crown as is worn by princes and noblemen. The coronet of a Brit-ish duke is adorned with strawberry leaves; that of a marquis has leaves with



## Corozonuts

genius, and the last twenty-five years of tariff law of 1900 providing for the tax-his life were a continuous triumph. He ation of every corporation, joint-stock frequently painted figure subjects, includ- company and assurance company organ-ing the large sacred pictures, the *Flight* ized and doing business in the United *into Egypt* and the *Baptism of Christ*: States, the tax being one per cent. upon but his most characteristic and successful all the net income over \$2600. This is a work was in landscape. His woodland national tax, its proceeds forming a part scenes, painted for the most part at of the national revenue. In 1910 these dawn or twilight in a scheme of pahe greens and silvery grays, show a singu-tarly subtle feeling for this phase of na-government the right to investigate the ture, and are undoubtedly among the most important contributions of the last century to landscape art.

most important contributions of the last century to landscape art. **Corozonuts** (ko-rô'zō-), the seeds of a tropical American palm, the *Phytelöphus macrocarpa*, whose hardened albumen, under the name of vegetable ivory, is used for small arti-cles of turnery-ware.

cles of turnery-ware. **Corporal** (kor'pö-ral: French, caporal, from L. caput, the head, the corporal being formerly a superior offi-cer), a petty officer in the American and British armies ranking just above the ordinary private and below the sergeant. He has charge of one of the squads of the company, places and relieves sentinels, etc. etc.

**Corporation** (kor-pō-rā'shun), in law, a civil or political body in which are vested certain rights or privin which are vested certain rights or priv-ileges with a view to their preservation in perpetual succession. A corporation may consist of one person only and his suc-cessors, when it is called *sole* (the sover-eign of Britain for example); or of a number of persons, when it is called *ag-gregate*. When a corporation is vested in single persons, that meson is backed area. a single person, that person is looked upon in regard to the rights of the corporation as holding a representative or official posi-In regard to the rights of the corporation as holding a representative or official posi-tion, and these rights belong to and are transmitted by him in virtue of this posi-tion, and not as natural rights. In like manner the rights and powers of an ag-gregate corporation do not consist of the natural rights of the members, but of the rights held and duly exercised by the terms of the corporation. Corporations may be either public or private. An in-stance of the former is a municipal cor-poration under the management of the State or the United States government. Private corporations do not fulfill any function of public government. They may be either ecclesiastical or lay. Ec-elesiastical corporations are created to enable religious societies to manage with greater facility their temporal concerns. Lay corporations are private corporations not under immediate control of some re-ligious body.

company and assumice company organized and doing business in the United States, the tax being one per cent. upon all the net income over \$5000. This is a national tax, its proceeds forming a part of the national revenue. In 1910 these were over \$26,000,000. The law, as sustained by the Supreme Court, gives the books of corporations. **Corps** (kör; French for body), a word often used as a military and a political term.—A corps d'armée, or army corps, one of the largest divisions of an army.—Corps diplomatique, the body of ministers or diplomatic characters.—Corps législatif (kör là-zhis-là-tếf), the lower house of the French legislature in 1857-70. Its members were elected for six years in the proportion of 1 to 35,000 electors. **Corpulence** (k or 'p û-l e n s), an unman body due to the excessive deposition of fat. It is promoted by a diet too rich in fat-forming materials, fats, starch and sugars, bodily inactivity, tranquillity of mind, etc. There is, however, a diseased state of the system which, independently of all these influences, will increase the production and deposition of fat. If corpulence is excessive it becomes troublesome and at length dangerous. In curing corpulency due attention must be pied to the regulating of the diet, exercise and sleep of the individual. Especial attention must be given to the kind of diet. Avoid all kinds of fatforming food, such as fat, cream, butter, sugar, potatoes, farinaecous food and malt liquors, and indeed alcoholie liquors of all kinds. Little bread should be eaten: a moderate increase in animal foods, lean beef, fish, fowl, eggs, is allowed; green vegetables and fresh fruit may be eaten. Regular excression to the kind of diet. Avoid all kinds of fatforming food, such as fat, cream, butter, sugar, potatoes, farinaecous food and malt liquors, and indeed alcoholie liquors of all kinds. Little bread should be eaten: a moderate increase in animal foods, lean beef, fish, fowl, eggs, is allowed; green vegetables and fresh fruit may be eaten. R bealth.

State or the United States government, health. Private corporations do not fulfill any **Corpus Christi** (kor'pus kris'ti; function of public government. They may be either ecclesiastical or lay. Events the consecrated host at the Lord's Sup-clesiastical corporations are created to per, which, according to the doctrines of enable religious societies to manage with the Roman Catholic Church, is changed greater facility their temporal concerns, by the act of consecration into the real Lay corporations are private corporations body of Christ. This doctrine caused the not under immediate control of some re-ndoration of the consecrated host, and hence the Roman Catholic Church has Corporation Tax, a section of the ordained for the bost a particular festival. Corporation Tax, United States called the Corpus Christ fest. This

**Corpus Christi** 

was instituted in 1264 by Pope Urban IV by a bull, in which he appointed the Thursday of the week after Trinity Sun-day for the celebration of the Corpus Christi festival throughout Christendom. Corpus Christi, a city, port of entry Corpus Christi, and county seat of Nueces Co., Texas, on Corpus Christi Bay, 125 miles S. E. of San Antonio. It is a popular health resort and has large cot-ton and other interests. Pop. (1910) S222; (1920) 10.522. Corpuscles (k o r'pus-ls, kor'pus-kls). Corpuscles (k o r'pus-ls, kor'pus-kls), substance, such as the electrons supposed to constitute the atom, and the flying particles in the Lesage hypothesis of gravitation. (See next article.) A name also applied to two kinds of minute solid bodies constituting an integral part of blood.

Corpuscular Theory of Light

Corpuscular Theory of Light (kor-pus'kū-lar), the theory which ex-plained the phenomena of light by sup-posing that a luminous body emits exces-sively minute particles of matter, cor-puscules as they were called, which strik-ing the eye produce the sensation of light. Newton held the corpuscular theory, and supported it with great incenuity. This theory has long been displaced by the undulatory theory (which see). Corpus Juris (kor'pus jū'ris: 'body of law') is a name given to certain collections of haws. The name of Corpus Juris Civilis ('body of civil law') in particular was bestowed in the twelfth century upon the general body of legal works drawn up at the or-ders of Justinian, viz. the Institutes, Pandects, Code and Novels: together with the collections bearing on the feudal law appended to them. With the canonical or papal laws the same mode of proceed-ing has been adopted, and the Corpus Juris Canonici compiled. Corral (kor-nl'), a yard or stockade Correction of the Press, the cor-rection

Correction of the Press, of printed matter before publication. The first impression taken from the types The first impression taken from the types is called a *proof*, and almost always con-tains some errors. In correcting proofs for the printer the following signs are used:—When a wrong word or letter occurs, a line is drawn through it, and the proper word or letter written on the margin opposite. If a clause, word, or better is omitted, a caret (A) is marked at the place, and the omission is written on the margin. If a superfluous letter or word occurs, the pen is drawn through it, and the character  $\mathcal{A}$ , signifying dele

(delete, or take out), written in the margin. Where words are improperly joined, a caret is written at the place where the separation should be made, and the mark # written in the margin. When syllables or words are improperly sepa-rated, they are joined by horizontal parentheses, as du ty. These parentheses are to be made in the margin as well as at the break. This sign is also used where there is too much space in one or more parts of a line. A tick-mark  $(\checkmark)$ also means to lessen space. When words are transposed, they are to be connected by a curved line, as not is when set up for 'is not,' and the mark *ir.* (trans-pose) is to be written in the margin. When a letter is turned, a line is drawa under it, and the mark 2 made in the margin. When punctuation is omitted or requires to be altered, a caret is put at the place, and the comma or period, etc., is placed in the margin, with a stroke behind it, as /. If a mark of quotation or superior letter has been omitted, the caret is made as before, and a mark of this sort vor which margin. Words which placed in the margin. Words which are to be printed in italics are marked beneath with a single line; as, office (office), if in small capitals, with two lines, as Greece (GREECE); if in full capitals, with three, as James (JAMES).

capitals, with three, as James (JAMES). Where these marks are used in correc-tion, the abbreviations *itsl.*, small caps., or caps, should be written in the margin. Where a word printed in italics is to be altered to roman letters, a line is to be drawn under it, and the word rom. writ-ten in the margin. Where a corrector, after altering a word, changes his mind, and prefers to let it stand, dots are placed under the word in the proof, and the word stet (let it stand) written in the margin. When two paragraphs are desired to be joined, the end of the one-and the beginning of the other paragraph are connected by a curved line and the words run in written in the mar-gin. Where a new paragraph is desired to be made, the mark I is inserted at the place, and the word par. written in the margin. The corrections should always be written on the margin of the proof se as to ensure notice by the printer; and when these are numerous or intricate, connect them by a line drawn from the place where they are to be madg.

# Correggio

Correggio (kor-rej'o), ANTONIO AL-LEGH, an Italian painter, born at Correggio, near Modena, in 1494. Little is known of his life, which was very retired. Almost the only anecdote told of him is that on seing the St. Cecilia of Raphael he exclaimed 'Anch 'io son pittore' (I also am a painter), but this is doubtful. Correggio is un-rivaled in chiaroscuro and in the grace and rounding of his figures. Among his best pictures are Night, in which the chief light is the glory beaming from the infant Saviour; the St. Jerome: the Marriage of St. Catherine; several Madonnas, one of them (called La Zingarella, or the Gipsy Girl) said to represent his wife; the Penitent Magda-tene: the altar-pieces of St. Francis, St. George and St. Schastian; Christ in the Garden of Olives; the fresco of the Ascension in the Church of St. John, Parma : the Assumption of the Virgin in the cathedral of the same city; the Ecco Homo and Cupid, Mercury and Venus, both in the National Gallery, London. He died in 1534. Correlation of Physical Forces,

**Correlation of Physical Forces**,

Correlation of Physical Forces, a term introduced by Mr. Grove to denote what may more properly be called the convertibility of the various forms of energy. The energy, for instance, which a bullet in rapid motion possesses, is con-verted into heat when it strikes the target, the bullet being then warm to the touch. So heat may again be converted into kinetic energy, that is, the form of energy possessed by a moving body: for instance, through the intermediation of a steam engine. Heat is also directly con-verted into electricity, and electricity into heat. In connection with this doctrine that of the conservation of en-ergy ought also to be studied. Corrèze (kor-faz), an inland depart-ment of France, formed from part of the former province of Limousin, and deriving its mame from the river Corrèze, by which it is traversed; area, 2273 square miles; capital, Tulle. It be-longs almost entirely to the basin of the Garonne. Except in a few valleys the soil is far from fertile, heaths occupying a great extent of surface, and agriculture being in a very backward state. Pop. 317,430. Corrib Lough (loh kor'ib), a large

being in .317,430.

Alt7,430. Action of the chemical on the stomach **Corrib**, Lough (lok kor'ib), a large may result in rupture thereof if an in-County Galway, partly also in County White of egg is very serviceable in coun-Mayo, about 23 miles in length, and teracting corrosive action on the stomach. Varying trom 2 to 6 miles in breadth. It is a powerful antiseptic. It receives the drainage of Lough Mask **Corrugated Iron** (k o r'û-gā-ted), through a subterranean channel, its own waters being carried by Galway River to strengthened by being bent into parallel

**Corrugated** Iron

Galway Bay. It has some fine scenery on its northern and western shores, con-tains numerous islands, and, next to Lough Neagh, is the largest lake in Ire-land. land.

and. Corridor (kor'i-dor; Italian and Span-ish), in architecture, a gal-lery or long aisle leading to several cham-bers at a distance from each other, some-times wholly enclosed, sometimes open on one side. In fortification, corridor signifies the same as covert-way. Corrientes (kor-ré-an'tâs), a town of the Argentine Republic, capital of the province of same name, on the Paraná, near its confluence with the Paranguay, Si2 miles N, of Buenos Ayres, It is well placed to serve as an entrepôt of goods between the upper parts of the Paraguay and the Paraná and the sea-ports on the La Plata. Pop. 30,172. Pop. of province, 259,479. Corrievrekin. See Corryverckan.

Corrievrekin. See ('orryvreckan.

Corrigan (kor'i-gan), MicHAEL AU-GUSTINE, archbishop, born at Newark, New Jersey, in 1839; died in 1902. He was graduated at the American Catholic bishop of Newark in 1873, was made an archbishop in 1880, and suc-ceeded Cardinal McCloskey as Archbishop of New York in 1885. Corrobory (kor'o-bo-ri), a dance en-gaged in by Australian natives in which the performers, with shields in their hands, circle round a fire. Corrody. See Corody.

Corrody. See Corody.

**Corrosives** (ko-ró'sivs; Lat. corrodere, substances which eat away), in surgery, substances which eat away whatever part of the body they are applied to; such are glacial acetic acid, burned alum, white precipitate of mercury, red precipitate of mercury, butter of antimony, hydrochloric acid, sulphuric acid, corrosive sublimate, etc. etc.

Corrosive Sublimate, hichloride of mercury **COTTOSIVE SUDIIMATE,** mercury (HgCh), a white, crystalline solid, an acrid poison of great virulence. The stomach-pump and emetics are the surest preventives of its deleterious effects when accidentally swallowed, if used im-mediately; after a time the corrosive action of the chemical on the stomach may result in rupture thereof if an in-strument be inserted or emetic attempted. White of egg is very serviceable in coun-teracting corrosive action on the stomach. It is a powerful antiseptic.

furrows. It is largely used for roofing, and when dipped in melted zinc, to give it a thin coating thereof, is commonly known as galcanized iron.

See At-

Corruption of Blood. See At-tainder. Corry (kor'i), a city of Erie Co., Pennsylvania, 37 miles s. E. of Erie, on 3 trunk lines of railroad. It has 50 manufacturing plants; the products include engines, radiators, toys, leather and steel goods, flour, brick, etc. There is here a State Fish Hatchery; also a new State Armory. Coal and iron fields are in the vicinity. Pop. (1920) 7228. Corsac (kor'sak) or COBBAK (Vulpes corsac), a species of yellowish fox or dog found in Central Asia, Siberia and India. It is gregarious, prowls by day, burrows, and lives on birds and eggs.

The provide many that in the verse of the south by (1920) 11,356. health. Corsica (kor'si-ka: French, Corse), an island in the Mediter-to be eaten by a suspected criminal. If it ranean, forming the French department was safely swallowed the person was inno-of same name. It is separated from cent; if it stuck he was guilty. the Strait of Bonifacio, about 10 miles; Orso (kor'so), an Italian term given the island of Sardinia, on the south, by Corso (kor'so), an Italian term given the Strait of Bonifacio, about 10 miles; Orso (kor'so), an Italian term given the strait of Bonifacio, about 10 miles; Orso (kor'so), an Italian term given the strait of Bonifacio, about 10 miles; Orso (kor'so), an Italian term given the strait of Bonifacio, about 10 miles; Orso (cort, Heaver, the inventor of the proc-square miles. The east coast is almost unbroken, but on the west coast a num-ber of deep bays follow in rapid success of puddling and rolling iron. The interior is traversed by a shire; erected ironworks, and studied with mountain chain, the culminating point great success methods of improving the of which, a ording to the latest surveys, process of manufacturing iron. By the

is Monte Cinto, 8891 feet high. Monte Rotondo coming next, 8775 feet high. From the east and west side of the chain numerous streams flow to opposite sides of the coast, generally mere torrents. With the exception of some marshy dis-tricts on the east coast, the climate is excellent. There are fine forests con-taining pines, oaks, beeches, chestnus and cork-trees, and the mountain scen-ery is splendid. In the plains and nu-merous valleys the soil is generally fer-tile; but agriculture is in a backward state. Mules, goats, horses, cattle and sheep, and among wild animals the boar, the fox and the deer are common. There are good fisheries. In minerals Corsica is not rich. The chief exports are wine, brandy, olive-oil, chestnuts, fruit and fish. The chief towns, Ajaccio and Bastia, are connected by railway. The island was first colonized by the Phenicians, from whom it got the name of Cyrnos. The Romans afterwards gave it that of Corsica. From the Romans it passed to the Goths, and from them to the Sara-cens, and in the fifteenth century to the Genoese. France had the rights of the Genoese. France had the rights of the Genoese ceded to her, after Paoli had virtually made Corsica independent, and in 1708. An insurrection in 1794, headed by General Paoli and assisted by the British, for a time gestored the island to in dependence; but in 1796 it again fell under the dominion of France. It is wotable as the birthplace of Napoleon. Pop. 288,820. Corsicana (kor-si-kan'a), a city. Co., Texas, in central Texas, in the beart day, burrows, and lives on birds and eggs. Corsairs (kor'sārs), the Anglicized south of Europe to denote those pirates who sailed from Algiers, Tunis, Tripoli, and the ports of Morocco. Corselet (kor'slet). (1) a cuirass or corselet (kor'slet). (1) a cuirass or corselet armor to protect the body from injury, worn formerly by pikemen, generally of leather, and pistolproof. (2) The part of a winged insect which an-swers to the breast of other animals. Corset (kor'set), a piece of under-clothing w or n. usually by from a sort of closely-fitting jacket, usually stiffened by strips of steel, whale-bone or other materials of which it is made should be especially fitted for the should be supecially fitted for the should be especially fitted for the should be supecially fitted for the shape, especially on young persons, will eries, oil-wells. There are refin-should in destroying natural grace of cotton oil mills, etc. Pop. (1910) 9749; movement and in serious injury to the corsica (kor'si-ka: French, Corsec), Corside (kor'si-ka: French, Corsec), corside (kor'si-ka: French, Corsec), corside (kor'si-ka: French, Corsec

# Cortelyou

Cortelyou mfortunate selection of a partner he was involved in a complication of lawsuits, and finally ruined. In 1794, however, he received a pension of £200 a year from the British government. He died in 1800. Cortelyou (kortel-yt), G B O B G B was born at New York in 1802; was grad-uated at the State Normal School, became a law reporter in 1883 and a school prin-ripal in 1885. He entered public service in 1880, became successively private secretary to various officials, and was made stenographer to President Cleveland in 1805, assistant secretary to President McKinley in 1898, and secretary in 1900. He was continued in this position by President Roosevelt, and was chosen by him in 1903 as the first secretary of the reasury, thus holding three secretary-ships in the Roosevelt cabinets. In 1909 he became president of the Consolidated Gas Company, of New York. Cortes (kortee), the old assembly of the department of the State Normal and Por-tural. In early times the king was very ependent upon them, especially in the kingdom of Aragon and Castile were united under Ferdinand and Isabella the crown succeeded in rendering itself more inde-pendent of the estates, and in 1538 Charles abolished the assembly of the restates in Castile altogether. Gradually the popular liberties were encroached upon, and the cortes at length were con-remed only for the purpose of homage or cremony, or when a question regarding the succession arose. In 1808 Napoleon revived the cortes of Spain are composed of a senate and congress equal in with the king to make haws. (Seg

revived the cortes for his own ends. The present cortes of Spain are composed of a senate and congress equal in with the king to make laws. (See Spain.) The Portuguese cortes is coeval with the monarchy, and has had a history very similar to that of the Spanish. Cortez, or Corres (kor'fas, kor'tez) conqueror of Mexico, was horn in 1485 at Modellin, in Estremadura; died near Seville in 1547. He went to the West It is a place of great antiquity, is partly Indies in 1504, where Velasquez, Gov-surnonded by cyclopean walks, and has repror of Cuba, under whom he had greatly in its museum a great variety of Etruscan mand of a fleet, which was sent on a royage of discavery. Cortez quitted Santiago de Cuba in 1518, with eleven wessels, about 700 Spaniards, eighteen hornes and ten small field-nieces. He anded on the shore of the Gulf of tona in 1506; died in 1609. Pope Ur-

Mexico, where he caused his vessels to be burned, in order that his soldiers might have no other resource than their own valor. Having induced the Totonacs and Tlaxcalans to become his allies, he marched towards Mexico, where he was amicably received; but, having seized Montezuma, the Aztec monarch, and treated the people with great cruelty,



Fernando Cortes.

Fernando Cortes. they finally became hostile and attacked the invaders. After a desperate struggle, in which 100,000 Mexicans are said to have perished, the city was taken, and soon after the whole country was sub-jugated. In 1528 Cortez returned to Spain; but two years after he was again sent out to Mexico, where he remained for ten years, discovering meanwhile the peninsula of California. He returned once more to Spain, where, notwithstand-ing his great services, he was coldly received and neglected. After taking part in an expedition to Algiers in 1541 he passed the remainder of his days in solitude. Cortland (kortland), a city, county

sontude. Cortland (kort'land), a city, county seat of Cortland Co., New York, 30 miles s. of Syracuse, on Tiough-nioga River. Seat of State normal school. It has manufactures of wire cloth, auto-mobiles, motor trucks, silk, wall paper, corundum wheels, carriage hardware and other products. Pop. (1910) 11,504; (1920) 13,294. Cortona (kortō'na) a situ formal school.

## Cortona

ban VIII employed him to decorate a a flush deck, with no quarter-deck and chapel in the church of St. Bibiena, and only one tier of guns; but the term is also to execute the frescoes of the grand now somewhat loosely used. Vessels of salon of the Barberini Palace. Many this class are now called cruisers. churches of Rome were decorated by him: Corvey, or KORVEI (kor'v1), a for-and at Florence he adorned the Pitti: Corvey, or KORVEI (kor'v1), a for-Palace for the Grand-duke Ferdinand II. His easel pictures, although of less vatue than his larger works, are held in great estimation. As an architect he did some important work in church restora-tion. tion.

Coruna (ko-rö'nyà). See Corunna.

**Coruna** (ko-rö'nyà). See Corunna. **Corundum** (ko-rün'dum), the earth alumina, as found native in a crystalline state. In hardness it is next to the diamond. The amethyst, ruby, sapphire and topaz are considered as varieties of this mineral, which is found in India and China, and is most usually in the form of a six-sided prism or six-sided pyramid. It is nearly pure anhydrous alumina (Al40s), and its spe-cific gravity is nearly four times that of water. Its color is various—green, blue or red, inclining to gray, due to traces of iron, copper, etc. Emery is a variety of corundum. **Corunna** (kõ-run'n a; Spanish, Co-traces of iton, copper, etc. Emery is a variety of corundum. **Corunna** (kõ-run'n a; Spanish, Co-tanzos. It consists of an upper and a lower town, the former built on the E-side of a small peninsula, and the latter on the isthmus connecting the peninsula with the mainland. The harbor, which is well protected, is deep, spacious and asfe. Cattle, wine, farm products and the are exported. Corunna was the port of departure of the Spanish Armada (1588), and the scene of the repulse of the French and the death of Sir John Moore (1809). Pop. 60,178. See map at *Ferrol.* **Corvallis** (kor-val'is), a city, county Ferrol.

**Corvallis** (kor-val'is), a city, county seat of Benton Co., Oregon, 96 miles s. by w. of Portland, on the Willamette River. Seat of the State Ag-ricultural College. It has saw mills, canneries, and door factories, flour mills, canneries, brick and tile works, and extensive farm interests. Pop. (1920) 5752. **Corvée** (kor'va), in fendal law, an obligation on the inhabitants of a district to perform certain services, as the repair of roads, etc., for the sovereign or the fendal lord. In France this system was not finally ablished until 1792.

early center of German civilization. Wit-tekind, the historiographer of the convent; Bruno, known afterwards as Pone Greg-ory IV, and many other learned men were educated here. To its library be-longed the only MS. of the first six books of the Annals of Tacitus, discovered here in 1514. The abbey, or castle of Corvey, as it is now called, has a rich and exten-sive library; but the ancient collection of the Benedictines is no longer in exist-ence. ence.

ence. Corvidæ (kor'vi-dě), the crows, a family of conirostral birds, in which the bill is strong, of conical shape, more or less compressed, and the gape straight. The nostrils are covered with stiff, bristle-like feathers directed forwards. The family includes the common crow, rook, rayen, magpie, jay, jackdaw, nutcracker, Cornish chough, etc. etc.

Corvi'nus, MATTHIAS. See Matthies
Corvi'nus, MATTHIAS. See Matthies
Corvo (kor'vo), the smallest and most northerly of the Azore Islands.
Pop. about 1000.
Corwin (kor'win), THOMAS, statesman and orator; born in Bourbon Co., Kentucky, in 1794; died in 1845. He won celebrity as lawyer and orator; was elected to Congress in 1840; supported Harrison for the presidency in 1840; and was elected governor of Ohio. He represented Ohio in the United States Senate, 1845-50. and in the latter year, was appointed Secretary of

United States Senate, 1845-50. and in the latter year, was appointed Secretary of the Treasury by President Fillmore. He was Minister to Mexico 1861-64. Cor'yat, THOMAS. an eccentric Eng-died at Surat India, in 1617. His wan-derings. a great part on foot, were through Europe, Asia Minor, Persia, In-dia, etc. His travels were published under such curious titles as Corysts (ruditice, Coryst's Crambe or Colwort Twice Sodden, etc. He acted as a sort of butt or foil to the wits with whom be associated in London. Corybantes (kor-i-ban'ter), frantic

this system was not finally abolished Corybantes (kor-i-ban'tez), frantic ontil 1792. Corvette (kor-vet'), a vessel of war, celebrated the mysteries with organize herque or ship-rigged, having dances to the sound of drum and cymbal.

# Corymb

Corymb which the flowers, each on its own pedicel of different

its own pedicel of different iengths, are so arranged along a common axis as to form a flat broad mass of flowers with a convex or level top, as in the haw-thorn and candytuft. Corypha (kor'i-fa), a g e n u s of



Corypha (kor'i-fa), a palms, including the fan-palm, gebang palm and taliput. Coryphæna (kor-i-fé'na), C o E'-Goryphæna (kor-i-fé'na), C o E'-fishes of the mackerel family (Scom-beridæ). The body is elongated, com-pressed, covered with small scales, and the dorsal fin extends the whole length of the back, or nearly so. The dolphin of the ancients is the C. hippuris. All the species, natives of the sea of warm climates, are very rapid in thei motions, and very voracious. They are of brilliant colors, and are objects of admiration to every voyager.

Coryphæus (kor-i-fe'us), the learns in **Coryphæus** (kollie us), the leader of the chorus in the Greek drama. His functions were often as wide as those of our stage-manager, conductor and ballet-master. The name coryphée is now applied to a balletdancer.

Coryphodon (kor-i-fo-don), a genus of extinct Ungulata, forming a link between the elephants and tapirs, having the ridges of its molar teeth developed into points; found in the Eocene formations of England and

(kor'imb), in botany, that cutlery; the environs are beautiful, and form of inflorescence in produce abundance of grain, fruit, oil, owers, each on wine and silk.

Coshering (kosh'er-ing), an antient wine and silk.
Coshering (kosh'er-ing), an antient ants' homes, possessed by Irish landlords.
Coshocton (ko-shok'ton), a city, county seat of Coshocton Co., Ohio, on Muskingum River and Ohio Canal, 69 miles E. N. E. of Columbus. It has manufactures of iron pipe, paper, glass, pottery, furniture, advertising novelties, etc., and is a shipping point for coal, flour, etc. Pop. (1920) 10,847.
Cosmas (k o s' m a s), surnamed and traveler of the sixth century; afterwards a monk. He wrote several geographical and theological works, the

navigator'), an Alexandrian merchant and traveler of the sixth century; after-wards a monk. He wrote several geographical and theological works, the most important of which extant is the *Christian Topography*. The author tries to prove that the earth is a parallelogram bounded by walls, which meet and form the vaulted roof which we call the sky. **Cosmetics** (kos-met'iks; from Gr. kos-med, I ornament or beauti-fy), external preparations for rendering the skin soft, pure and white, or for beautifying and improving the complex-ion. To these may be added preparations for preserving or beautifying the teeth, and those which are applied to the hair. **Cosmism** (kos'mizm), that system of philosophy, based on the doctrine of evolution, enunciated by Mr. Herbert Spencer and his school; a phase of positivism. of positivism.

torming a link between the elephants and tapirs, having the ridges of its molar teeth developed into points; found in the Eocene formations of England and France. Cos, now called STANCHIO or STANKO, formation of the universe. Such theories the coast of Asia Minor; area, 95 square place of Hippocrates, and had anciently 2. The matter of the world as substance, place of Hippocrates, and had anciently 2. The matter of the world is eternal, a celebrated temple of Esculapius. In but not its form. 3. The matter and Cos was manufactured a fine, semitrans-parent kind of silk, much valued by the ancients. Cos is also the name of the principal town, a decayed seaport. The island yields grain, wine, silk, etc. Cosby (kozbi), WILLIAM, an carly Cosby (kozbi), WILLIAM, an carly fing one among the ancients, who, start-of West Stafford-shire. 11 miles N, of Birmingham. It has extensive iron and other manufactures, province of Cosenza or Calabria Citeriore, of Southern Italy, capital of province of Cosenza or Calabria Citeriore, 150 miles S. F. of Naples; pop. 27.048. It has manufactures of silk, pottery and also Egyptians seem to have adhered to the set the theory is and the manufactures of silk, pottery and also Egyptians seem to have adhered to the set to fire world. Italy, capital of the set the the theory had been always in the seem that the vorle to a constant succession of uncertain movements which chance of Southern Italy, capital of the set that the vorle and the set always in the principal to a constant succession afterwards made regular, they called the set that the vorle and bad been always in the province of Southern Italy, capital of the set to a constant succession of uncertain movements which chance the set the theory and also Egyptians seem to have adhered to

## Cosmogony

this theory. One form of this theory is the atomic theory as taught by Leucip-pus, Epicurus and Lucretius. According to it, atoms or indivisible particles existed from eternity, moving at hazard, and proform eternity, moving at hazard, and pro-ducing, by their constant meeting, a va-riety of substances. After having given rise to an immense variety of combina-tions they produced the present organi-zation of bodies. The third theory of cosmogony may be said to be that gener-ally stated in the first chapter of Genesis, where the act of creation is unequivocally enunciated. This narrative has points in common with several ancient cosmological speculations. In modern cosmological spec-ulations various causes have been as-signed to account for the phenomena of nature. nature.

**Cosmos** (koz'mos), order or harmony, mad hence the universe as an orderly and heautiful system. In this sense it has been adopted by Humboldt as the title of his celebrated work, which describes the nature of the heavens as well as the physical phenomena of the earth. earth.

earth. **Cosne** (kön), a town of France, dep. Nevers, on the Loire, Pop. 8437. **Cossacks** (kos'aks; Casacks), tribes and castern parts of Russia, paying no taxes, but performing instead the duty of soldiers. Nearly all of them belong to the Graeco-Russian Church, to which they are strongly attached, and to the observ-ances of which they are particularly attentive. They must be divided into two principal classes, both on account of two principal classes, both on account of their descent and their present condition —the Cossacks of Little Russia and those —the Cossacks of Little Russia and those of the Don. Both classes, and especially those of the Don. bave collateral branches, distributed as Cossacks of the Azoff, of the Danuhe, of the Black Sca. of the Cuncasus, of the Ural, of Orenberg, of Siberia, of the Clinese frontiers and of Astrakhan. Writers are not agreed as to the origin of this people and of their name, but the V are be access to be a mixed Cancesian and Tartar race. In personal appearance the Cossacks bear a mixed Cancesian and Tartar race. In personal appearance the Cossacks bear a close resemblance to the Russians, but rec of a more slender make, and have features which are decidedly more hund-some and expressive. Originally their g-vocument formed a kind of dom stracy, at the bead of which was 2 chief or bottom of their own choice; while under him was a herry series of officers, with invisitedious of greater or less extent, partly eivil and partly military, all so arranged as to be able on any emergency

to furnish the largest military array on the shortest notice. The democratical part of the constitution gradually disap-peared under Russian domination, and when, in 1917, Russin capitulated to Ger-many and agreed to the recognition of the separate republic of the Ukraine, there was a vigorous movement for the re-estab-lishing of the Don Cossack republic. The Cossacks were a very important element in the national army of Czarist Russia, forming a first-rate irregular cavalry and rendering excellent services as scouts and skirmishers. The European war, however, was fought more with shells than with horses, and the fact that great Russia laid down her arms before the victorious Teutons is no reflection on the courage and skill of the Cossacks. Every Cossack was linkle to military service from 18 to 50. The Cossacks number about 3,250,000. The capital of the Don Cossack territory is Novo Tcherkask, which was founded in 1805. Rostov is the commercial center. Agriculture, live stock, herring-fishing and coal mining are the principal industries of the Cossacks. **Cossus (cossus). SERVICE COEXELUE,** in single combat he slew the Veian King Lar Tolumnius, and won the spolic opims, which could be gained by a Roman gen-eral only from a leader of the enemy. **Costa** (kos'ta), LOREXZO, born in 1460; died 1355; an Italian painter of the Bolognese school. **Costa**, SIR MICHAEL, musical composer of an old Spanish family in 1810; died in 1853 became a naturalized British sub-ject. He was conductor of the Philhar-monic Society, the Sacred Harmonic So-ciety, Her Majesty's Opera, the Hiandel to furnish the largest military array on the shortest notice. The democratical

1884. In 1828 he went to England, and in 1839 became a naturalized British sub-ject. He was conductor of the Philhar-monic Society, the Sacred Harmonic Se-ciety, Her Majesty's Opera, the Händel Festivals, etc. His chief works are the opera Don Carlos and the oratorios Eli and Naaman. He was knighted in 1869. Costanoan (kös-ti'nō-än), a linguis-tic stock of North Ameri-can Indians, whose territory extended from the Golden Gate, California, to a point below Monterey Bay. It once con-sisted of numerous tribes, but now is al-most extinct, 30 survivors existing in 1889. Costa Rica (kos'ta rë'ka; Sp. 'rich const'), a republic in the southern part of Central America, bounded N. by Nicaragua, E by the Carib-bean Sea, S. E. by Panama, and s. w. by the Pacific. The area is estimated at 23.000 sq. miles, divided into seven prov-inces, San José, Alajuela, Heredia, Car-tago, Guanacaste, Punta Arena, and Limon. The country is intersected diag-onally by the primary cordillera of the

# Costello

isthmus, which throws off numerous spurs on either side. The chief range contains several lofty eminences (the highest 12,700 feet) and volcances, both active and extinct or dormant. Agricul-ture is the principal industry; chief prod-ucts, coffee (24,000,000 pounds in 1921), and bananas. Bee-keeping is becoming an important industry. Gold and silver are mined on the Pacific slope. Several districts are auriferous. Maize, sugar-cane, rice and potatoes are commonly cul-tivated. Over 2700 acres are under to-bacco. Live stock is also raised. In the forests are large quantities of virgin rose-wood, cedar, mahogany, and other cabinet Ivited. Over 2/00 acres are under to-bacco. Live stock is also raised. In the forests are large quantities of virgin rose-wood, cedar, mahogany, and other cabinet woods. The capital is San José. Chief ports, Limon, on the Caribbean, and Punta Arenas, on the Pacific. Costa Rica has been an independent state since has been an independent state since large quantities of the Central American Federation, but subsequently became separate. Another Confederation was formed in 1872 but did not long continue. There are over 400 miles of railroad and 1500 miles of telegraph lines. The value of imports into and exports from Costa Rica in 1919 was: imports, \$7,300,000; exports, \$16,500,000. Pop. 459,423.
Costello (kos-tel'o), DUDLEY, novelist and journalist, born in Ireland in 1803; died at London in 1865. A constant contributor to many journals and magazines, and author of several popular works of fiction, etc.—His sister, LOUISA STUART COSTELLO, born in 1815; died in 1870; published two romances, entitled The Ouern Mather (1841) and Clara Fanc (1848), a poem called The Lay of the Stork (1856), and various historical and descriptive works.
Coster (k os't er). LAURENS (called The Lay of the Stork (1856), and various historical and descriptive works.
Coster (k os't er), CAURENS (called the Stork (1856), and various historical and descriptive works.
Coster (k os't er) of the parochial church at Haarlem, and from this office he derived his surname. According to a statement first found in Junius' Bataria (158) he was the acriginal inventor of the state statement first found in Junius' Bataria (158).

he derived his surname. According to a statement first found in Junius' Batavia statement, first found in Junius' Balavia (1588), he was the original inventor of movable types, and on this ground the Dutch have erected statues in his honor. But in 1840 a Dutchman, Dr. Van der Linde, professed to have demolished the claims of Haarlem to the invention of printing, and to have established that Linde, professed to have demolished the (1996) 357,959. claims of Haarlem to the invention of **Côtes-du-Nord** (köt-dü-nör), a mari-printing, and to have established that Holland. like other countries, was in- the north of France, forming part of debted for it to the Mavence school. This ancient Brittany; capital Brieue. Area, conclusion has been rejected by Mr. J. II. 2059 so, miles. The coast extends about Hessels, who, on carefully investigating 150 miles, and the herring, pilchard and the matter, thinks it highly probable that macker-l fishing is actively pursued. One Coster was the inventor. Among Amer- of the main branches of industry is the

Côtes-du-Nord

ican printers Gutenberg is credited with the invention. See *Fust*, *Gutenberg* and Schöffer.

Costmary (kost'ma-ri; from L. costos, **Costmary** (kost'ma-ri; from L. costos, an aromatic plant, and Mary, the Virgin), or ALECOST (Bal-samita vulgāris), a composite herbaccous plant, a hardy perennial, a native of Italy, introduced into Britain in 1548, and com-mon in almost every rural garden. It was formedir nut into all to give it an arm

mon in almost every rural garden. It was formerly put into ale to give it an aro-matic flavor, hence the name Alecost. **Costs**, in law, are the expenses incurred a suit, but there are always extrajudicial expenses incurred by both parties, which each has to pay whatever be the issue of the suit. In criminal cases the party accused may have his expenses if the court thinks the accusation unreasonable. In matrimonial suits, the wife, whether here the to be costs from the husband, **Costume** (kos'tûm), the style of attire ual, community, class, or people; the Costume (kostūm), the style of attire characteristic of an individ-ual, community, class, or people; the modes of clothing and personal adornment which prevail in any period or country.---Costume balls, also called fancy dress balls, are entertainments at which the guests adopt a style of dress different from the one usually worn. It may be one which was worn at another period, or one worn in another country, or a modern dress worn by some particular class of society. A favorite plan is to make up as some well-known character in history or literature. Côte-d'Or (kot-dor), that is, hill or hillside of gold, from the excellence of its vintages, a chain of hills in the east of France, height from 1400 to 1800 feet. Côte-d'Or, an inland and eastern de-of the old province of Burgundy, having Dijon as its capital. It is watered by the Seine, the Saône, and their affluents, and derives its name from the Côte-d'Or hills (see above), which traverse it from N. E. to S. W. Area, 2882 sq. miles. The vineyards of the eastern slopes of the Côte-d'Or produce the celeirated wines of Upper Burgundy. Iron, coal, marble, etc., are found. Pop. (1986) 357,059.

Iron, coal, marble, etc., are found. (1906) 357,959. Pop

rearing of cattle and horses. In manu-facturing industries the principal branch rearing of cattle and horses. is the spinning of flax and hemp and the weaving of linen and sailcloth. Among the minerals are iron, lead and granite. the minerais Pop. 611,506.

Coteswold (or Cotteswold) See Cotncold Hills. HILLS.

Cöthen. See Cocthen.

Cothur'nus. See Buskin.

Cotidal Lines (kō-tī'dal), a system of lines on a globe or system

Cotinal hus, see *Duskin*.
Cotidal Lines (kö-ti'dal), a system of lines on a globe or chart marking the places where high water occurs at the same instant.
Cotillion (kö-til'yun), a brisk dance by eight persons together, resembling the quadrille, which superseded it. The name is now given to a dance which often winds up a ball, and which is danced with any number of dancers and with a great variety of figures, the pairs of dancers following in this the leading patr, and partners being successively changed.
Cotingas (ko-tin'g a s), a family control of tropical American birds, some of which have splendid plumage, or are otherwise remarkable. See Bellbird, Umbrella-bird.
Coto (kô'tō), the reddish-brown, aromatic and slightly bitter bark of Palicourca densifiora, order Rubiacex, a tree of South Americs imported into Europe and used as a renedy in diarrhea and profuse sweating.
Cotoneaster (kot-on-e-as'ter), a genus ing shrubs, nat. order Rosacee. C. rulgāris is a British species, having rose-colored petals and the margins of the calyx downy. The other species are natives of the south of Europe and the mountains of India. They are all adapted for shrubberies.
Cotopaxi (kö-tö-paks'i), the most remarkable volcanic mountains of the Andex, being a perfectly symmetrical truncated cone, presenting a uniform unfurrowed field of snow of resplendent brightness. Several terrific eruptions of it occurred in the course of the eighteenth and the beginning of the nineteenth century. it occurred in the course of the eighteenth and the beginning of the nineteenth century.

**Cotrone** (ko-trö'na), a seaport of Southern Italy, province of Catanzaro, on the site of the ancient Croton. It has a cathedral, is defended by a citadel and otherwise fortified. Pop. 7917

Cotswold Hills (kots'wold), a range of hills in England. County Gloucester, which they traverse N. to S. for upwards of 50 miles; ex-treme elevation near Cheltenham, 1134 feet. The Cotswold sheep are a breed of sheep remarkable for the length of their wool, formerly peculiar to the counties of Gloucester, Hereford, and Worcester. Cotta (kot'ta), JOHANN FREDERCH, BARON VON, an eminent book-seller of Germany, born in 1764; died in 1832. He began business at Tübingen, but in 1811 removed to Stuttgart. He was the publisher for many great writers in Germany, including Goethe, Schiller, Wieland, Richter, Uhland, Fichte, Hegel, the Humboldts, and others. Cottabus (kot'a-bus), an ancient Greek game, which con-sisted in throwing wine from cups with-out spilling, into little basins of metal, suspended in a particular manner or floating in water. Cottage (kot'a), a small country res-idence or detached attached

Cottage (kot'aj), a small country res-idence or detached suburban house, adapted to a moderate scale of living, yet with all due attention of neat-ness, comfort and refinement.

Cottbus. See Kottbus.

hess, comfort and refinement.
Cottbus. See Kottbus.
Cottier Tenure (kot'ier ten'ür), a system of tenure according to which laborers rent small portions of land directly from the owner, or from a farmer, often giving personal service as part of the rent, and holding by annual tenancy.
Cottin (kot-au), SOPHIE RISTAUN, better known by the name of Madame Cottin, a banker of Bordsaur, who died in 1897. In 1790 she married M. Cottin, a banker of Bordsaur, who died in 1793, and thenceforth she followed literature. Her best-known work is Elizabeth, or the Esiles of Siberis; other novels are Claire d'Albe. Helvisse, Amélic and Mathilde.
Cottle (kot'l), JOSEPH. a bookseller and publisher of Bristol, England, and the author of some now almost completely forgotten poems, was born in 1774; died in 1853. He was a generous friend to Coleridge and Southey in their early days, and wrote an interesting volume of recollections of those authors.
Cotton (kot'n), the name given to the soft cellular hairs which encircle the seeds of plants of the genus is indigenous to both the Old and the New World, and the plants are now cultivated all over the world within the limits of 30° north and south of the requator. All the species are peremial





Reproduced by permission of The Philadelphia Museums. COTTON PICKER



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COTTON PLATFORM AND COMPRESSOR Experts have for many years been seekins a machine for picking cotton. The one illustrated above is an agenious device which propels itself, picks the cotton, and stores it in the bags at the rear. In the lower isw the machine seen in the background presses the cotton into bales, which are bound with steel tape.

# Cotton

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### Cotton

## Cotton

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# Cotton-gin

been impossible without Whitney's inven-tion, which, however, was pirated, he re-ceiving little benefit from it. The action of the machine, it must be said, is very hurtful to the fiber, it being in this way a wasteful and costly apparatus. This injury was especially great with the long-stapled cotton, the fibers of which were found to be more or less cut, or 'nepped', by the tearing action of the saws. To prevent this another American invention, the Macarthy gin, has come into use for cleaning the long-stapled Sea Island, Egyptian and Brazilian cotton. In this he fiber is drawn by a leather roller be-tween a metal plate called the 'doctor', fixed tangentially to the roller, and a blade called the 'beater', which moves up and down in a plane immediately behind and parallel to the fixed plate. As the cotton is drawn through by the roller, the seeds are forced out by the action of the movable plate, which acts vertically in some machines and horizontally in others. Attempts have been made to im-prove both the saw and the roller ma-chines, in the one case to prevent injury been impossible without Whitney's inventhe movable plate, which acts vertically in some machines and horizontally in others. Attempts have been made to im-prove both the saw and the roller ma-chines, in the one case to prevent injury to the staple, in the other to add to the rapidity of the cleaning process. One of these is the 'needle' saw-gin, an inven-tion intended to prevent the fiber from being cut. It consists of steel wire set in block tin, with the bottom of the teeth rounded or made smooth. On the other hand the Macarthy gin has been developed into a double action machine, with two movable blades or beaters. Also the 'knife roller' gin, the 'lockjaw' gin, and others have appeared as rivals to the saw-gin. The machine which will clean the largest quantity in the shortest space of time is naturally preferred, unless the injury to the staple is such as to reduce its market value. The production of the planter and the manufacturer. Until re-cent years the ginning was done on the blantations. Nearly the whole of it is now planter and the manufacturer. Until re-cent years the ginning was done on the plantations. Nearly the whole of it is now done in public ginneries with steam power and much more rapid production. The saw-gin is five times as fast as the roller-gin in its operation and is used throughout the Southern States except in the region of Sea Island cotton. **Cotton-grass**, the popular name of *Eriophörum*, order Cyperacea or sedges. Several species occur in the United States and in Great Britain, in moory or boggy places, and the white, cottony substance they produce is used for stuffing pillows, etc.

Cotton-picker, MECHANICAL. Cotton been Cotton-spinning

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### Cotton-worm

a hard twist, which renders it tough and strong. By means of the latter yarns of less strength are produced, such as warps of light fabrics and wefts of all kinds. (See Thread and Weaving.) Up to the middle of the last century the only method of spinning known was that by the hand-wheel, or the still more primitive distaff and spindle. In 1767 a poor weaver of the name of Hargreaves, residing at Stanhill, in Lancashire, England, in-vented a machine for spinning cotton, which he named a spinning-jenny. It consisted at first of eight spindles, turned by a horizontal wheel, but was afterwards greatly extended and improved so as to have the vertical substituted for the horizontal wheel, and give motion to from fifty to eighty spindles. In 1769 Arkwright, originally a barber's ap-prentice, took out a patent for spinning by rollers. From the circumstances of the mill erected by Arkwright at Crom-ford, in Derbyshire, being driven by water-power, his machine received the name of the water-frame, and the thread spun on it that of water-twist. The next important invention in cotton-spin-ing was that of the mule, introduced by Mr. Samuel Crompton, of Bolton, in 1775, and so called from its combining the principle of the spinning-jenny of Hargreaves with the roller-spinning of Arkwright. Numerous improvements in cotton-spinning have been introduced up to the present day, but they are all modifications of the original inventions. Among these is the throatle, an extension and simplification of the original spin-ning-frame, introduced about the year 1810. The first machines set up in the Cartwright power-loom at Lowell, Mass., which is now the largest cotton-manu-facturing center in America. There are also extensive mills in active operation in Alabama, Georgia and other Southern Ntates. **Cotton-worm**, a caterpillar which a hard twist, which renders it tough and don, and are accordingly termed mono-strong. By means of the latter yarns ot cotyledonous; others have two, and are less strength are produced, such as warps dicotyledonous. These differences are ac-of light fabrics and wefts of all kinds. companied by remarkable differences in (see Thread and Weaving.) Up to the the structure of the stema, leaves and middle of the last century the only method blossoms, which form the basis for the discontinge brown was that by the bands

Cotton-worm, a caterpillar which feeds on the leaves of the cotton-plants, in such multitudes as to cause serious mischief. It changes into a pale, reddish-green moth. Cottus, a genus of fishes. See Bull-

into a pale, reddish-green moth. Cottus, a genus of fishes. See Bull-Coturnix. See Quail. Cotyledons (kot-i-lē'dons), the seed-embryo plant, forming, together with the radicle and plumule, the embryo, which exists in every seed capable of germina-tion. Some plants have only one cotyle-a doctor and served as such in the army



1. Monocotyledon (seed of Arum maculatum). 2. Dicotyledon (seed of Papaser Rhass). 3. Poly-cotyledon (seed of Pinus sylvestris).

cotyledon (seed of Pinus sylvestrie). division of flowering plants into two great classes. The embryo plant of the Coniferæ has many (three to twelve) cotyledons, and is called polyootylodonous. The cotyledons contain a supply of food for the use of the germinating plant. In some plants the store is very large, and in germination the seed-leaves remain under the ground, as in the pea and oak; in others the store is not so large, and the seed-leaves appear above ground and per-form the functions of true leaves; while there is a large class of seeds where the embryo is very small, and the food is stored up around it, as in wheat and the buttercup. Couchant (kouch'ant), in heraldry.

Couchant (kouch'ant), in heraldry, said of a beast lying down with the head raised.

with the head raised. Couch Grass (QUITOH, or QUICK) (Triticum repens), a perennial grass, which is propagated both by seed and by its creeping root-stock, and is one of the most common and troublesome weeds of agriculture. When it first appears above ground its blade is readily eaten by sheep. The roots are readily eaten by sheep and when cleaned horses. It is the grass eaten by dogs as an emetic. Couching (kouch'ing). an old oner-

an emeric. Couching (kouch'ing), an old opera-tion for cataract, which consisted in passing a needle into the eye, and with it pushing the lens out of its place to leave the pupil of the eye clear.

# Cougar

Cougar
from 1862 to 1881, also holding official positions in the northern boundary survey and the geological survey of the territories. He was professor of anatomy in the National Medical College at Washington 1877-57, and in 1888 of biology in Virginia Agricultural College. His works include Key to North American Birds and various other works on birds, Far-Besring Animals, Biogon, Expedition of Lewis and Clerk, etc.
Cougar (kö'gkr), a voracious quadruped of the cat kind, inhabiting most parts of America—Felis concolor. Its color is a uniform fawn or reddish brown, without spots or markings of any kind. It may attain a length of 9 feet, inclusive of the tail. In habits it is stealthy and cowardly, and seldom or never attacks man. It is by some called the puma or red tiger, and is oue of the most destructive of all the animals of America, particularly in the warmer climates, where it carries off fowls, dogs, cats and other domestic animals.
Cough (kof), a sudden and forcible expiration immediately preceded by closure of the glottis or narrowed portion of the box of the windpipe. The force for the action is obtained by a deep breath, then follows the closure of the slottis, succeeded by the expiratory effort forcing open the glottis. The action is performed by the expiratory muscles, that is, the abdominal muscles, by whose contraction the diaphragm is forced up, and the muscles of the chest, by which the ribs are pulled down. The cavity of the chest being thus diminished, air is driven out of the lungs. The object of the cough is usually to expel any foreign material may be there present as the result of inflammation, catarrh, etc. It may also have gained entrance by the supering material in the lungs or air tubes. The output is usually to expel any foreign material in the lungs or air tubes. The fourth is usually to expel any foreign material may be there is no irritating material may be merely some food or drink which has slipped into the larynx, or it may be function. Thus, the irritat cats and other domestic animals. of time it constitutes a coulomb. Named Cough (kot), a sudden and forcible after C. A. Coulomb (see preceding arcord cypiration immediately pretice). Coulomb (see preceding arcord cypiration of the box of the windpipe. The force for the action is obtained by a deep treath, then follows the closure of the tronka bean, sweet woodruf, sweets forcing open the glottis. The action is a pleasant, aromatic odor, and a burning performed by the expiratory effort is a pleasant, aromatic odor, and a burning performed by the expiratory muscles, that the muscles of the chest, by which the councils of the chest, by which the muscles of the chest, by which the council of the lungs. The object of the coust of the lungs or air tubes. The action is a pleasant, aromatic odor, and a burning material in the lungs or air tubes. The convened for deliberation and the enactorfue of the larynx, or it may be merely some food or drink which as slipped into the larynx, or it may be produced by irritation of cerves, the reign of Urban 11, in which the former and infinited, and the which is the means of expelling the which has slipped into the larynx, or it may be produced by irritation of nerves, the reign of Urban 11, in which the first was more precisely determined. Among the principal Latin which is called reflex action. Thus, the irritation of nerves, the reign of Urban 11, in which the first was more precisely determined. Among the principal Latin which is called reflex action. Thus, the ritiation of nerves, the reign of Urban 11, in which the first terms by produced by irritation of nerves, the reign of Urban 11, in which the first terms by produced by irritation or nerves, the reign of Urban 11, in which the first terms by pressure of growths, etc., may the principal Latin of Constance, the most numerous of all irritation of the throat, as of trunced a reformation, if not in the doctrile or of the condition, in which the terms in an inflamed and irritable condition, in the doct the endition of the sto

17-3

the tickling by a long uvula, and so on, also produces it. A catarrnal cough a generally considered unimportant, partic-ularly if there be no fever connected with it. But every cough lasting longer than two or three days is suspicious and ought to be medically treated. **Coulisse** scenes of the stage in a theater, or the space included between the side scenes; properly one of the grooved pieces of wood, etc., in which a flat scene moves.

moves.

moves. **Coulomb** (kö-lön), CHARLES AUGUS-TIN DE, French physicist, born in 1736 at Angoulême; died in 1804. Ilis fame rests chiefly on his discoveries in electricity and magnetism, and on his invention of the torsion balance. **Coulomb**, or AMPERE-SECOND, is the energy. When a current having the strength of 1 ampere passes through a

energy. When a current having the strength of 1 ampere passes through a 1-ohm-resistance conductor in 1 second of time it constitutes a coulomb. Named after C. A. Coulomb (see preceding article).

# Council

cipline of the church; and the Council of Trent, which began its session in 1545, and labored chiefly to confirm the doc-trines of the Catholic Church against the Protestants. On December 8, 1860, an ecumenical council, summoned by a bull of Pope Pius IX. assembled at Rome. This council adopted a Decree or Consti-tutio de Fide, and a Constitutio de Ec-clesia, the most important article of which latter declares the infallibility of the pope when speaking ex cathedrá. Council. AULIC. See Aulic.

Council, AULIC. See Aulic.

Council, PRIVY. See Privy-council.

Council and Session, LOBDS OF, judges of the highest court of Scotland. See Session, Court of.

See Sension, Court of. Council Bluffs, a city and impor-tant manufacturing and distributing center, seat of Pottawat-tamie County, Iowa, on the left bank of the Missouri, opposite Omaha City, with splendid railway facilities and large grain elevators, the distributing center of a rich corn-growing country. The city is also a manufacturing city and large farm-imple-ment center. Pop. (1920) 36,162. Council of Ten, a secret tribunal republic, formed in 1310 and continued til the fall of the republic in 1797. It virtually ruled the state, secretly decree-ing the death of those whom it had rea-son to fear.

son to fear.

son to fear. **Council of War**, an assembly of rank called to consult with the command-er-in-chief of an army, or admiral of a fleet, on matters of supreme importance. **Counsel** (koun'sel), or CounseLOR, a person retained by a client to plead his cause in a court of judica-ture. (See Barrister and Advocate.) The term counsel is used as a plural for a number of legal counselors engaged to-gether in a case. -Queen's or King's Counsel, are English barristers appointed counsel to the crown, on the nomination

civil employment. About the end of the fifteenth century, in Germany, and under the last princes of the Merovingian race in France, the title appears to have be-come hereditary in certain families. The German title Graf corresponds to the title Count in other countries of Europe. In

Count in other countries of Europe. In modern times the custom of styling all the sons of a count also counts makes this designation very common, and the rank little more than nominal. In point of rank, the English earls are considered as corresponding to the continental counts, an earl's wife being styled a counts, an countess.

**Count**, in law, a declaration or indict-**Count**, ment, an independent part of which, if it stood alone, would constitute a ground of action.

which, if it stood alone, would constitute a ground of action. Counterfoil (koun'tér-foil), a kind of complementary and easily detached portion of a document, such as a bank check or draft, which is retained by the person giving the docu-ment, and on which is written a memo-randum of the main particulars contained in the principal document. Counter-irritant, in medicine a ployed to produce an artificial or second-ary disease, in order to relieve another or primary one. The term is more specificily applied to such irritating sub-stances as, when applied to the skin, redden or blister it, or produce pustules, purulent issues, etc. The commonest counter-irritants are such as mustard, turpentine, cantharides or Spanish flies, croton-oil and the cautery. Counterpoint (k ou n'terpoint). in music, a term equiva-lent to harmony, or the writing of a carefully planned accompanying part; or that branch of the art which, a musical though being given, teaches the develop-ment of it, by extension or embelliahment, by transposition, repetition or imitation throughout the different parts. Counter-point is divided into simple, forid or fourate and double. Simple counter-point is divided into simple, forid or fourate and couble. Simple counter-point, two or more notes are writtes against each note of the subject, or canto fermo, and discords are admissible. Double counterpoint is an inversion of the parts, so that the base may become the subject, and the subject the base, etc. thus producing new melodies and new harmonies. Counterscarp (k o u n'ter-skarp), in Counsel to the crown, on the nomination is a composition in two or more parts, of the lord-chancellor, and taking prece-the notes of each part being equal in dence over ordinary barristers. They value to those of the corresponding part have the privilege of wearing a silk gown or parts and concords. In forid counting barristers being of wool. Count (kount: Latin comca, comitia, a canto fermo, and discords are admissible, companion) appears to have Double counterpoint is an inversion of been first used, as a title of dignity, in the parts, so that the base may become the reign of the Roman emperor Constan-the companion of a prince or high digni-harmonies. tary, After the fall of the Roman power the title was retained; and under Charle-magne it denoted equally a military or terior talus or slope of the ditch, or the

# Countersign

talus that supports the earth of the cov-ered way. It often aignifies the whole covered way, with its parapet and glacis. **Countersign** (sin), a private signal, to soldiers on guard, with orders to let no man pass unless he first give that sign; a military watchword,

sign; a military watchword. **Coun'tertenor** (-ten-or), in music one of the middle parts between the tenor and the treble; high tenor. It is the highest male adult voice, having its easy compass from tenor G to treble C, and music for it is written on the alto or C clef on the middle line of the staff. The lowest voices of females and hove have about the same register. music and boys have about the same register, and are sometimes inaccurately called countertenor. The correct term is alto or **cont**ralto

Count Palatine (pal'a-tin), in Eng-land, formerly the Count Palatine (paratine), in Eng-superior of a county, who exercised regal prerogatives within his county, in virtue of which he had his own courts of law, appointed judges and law officers, and could pardon murders, treasons and felonies. All writs and judicial processes proceeded in his name, while the king's writs were of no avail within the Bishop of Durham and the Duke of Lancaster were the Counts Palatine of England, the corresponding counties be-ing called counties palatine. Country Dance (kun'tri dans), a Finglish origin, in which many couples

Country Dance (kun'tri dans), a rustic dance of English origin, in which many couples can take part. The performers are ar-ranged face to face, the gentlemen on one side and the ladies on the other, and go through certain prescribed figures. County (koun'ti), originally a dis-trict of a country subject to a count or earl. The county in the United States has developed from the English county of the seventeenth cen-tury; but the organization of county ad-ministration has been thoroughly decen-tralized by the radical extension of popular election for all classes of of-ficials. The principal county board, or-ganized in various ways. Every county is the locally-elected county board, or-ganized in various ways. Every county also has a sheriff and usually other elective officers, such as prosecuting at-torney, treasurer, clerk and coroners. In many states there are county registers of deeds, auditors, assessors, school com-missioners and surveyors. County admin-istration varies in different states.

istration varies in different states. County Courts, are an ancient insti-tution in England. Their jurisdiction was formerly very restricted, but they have had extensive

powers conferred on them by recent acts of Parliament. In the United States there is a regular court in each county, presided over by a judge elected by the people or appointed by the governor and senate.

County Palatine, a county under a count palatine.

County Palatine, a county andre See Count Palatine. COUD (kö; French, a blow), a term used in various connections to convey the idea of promptness and force. —Coup de main, a prompt, vigorous and successful attack.—Coup d'état, a sudden decisive blow in politics; a stroke of policy; specifically, an exertion of pre-rogative to alter the laws or the constitu-tion of a country without the consent or concurrence of the people expressed through their representatives, especially when such exertion is supported by armed force.—Coup de solcil. See Sun-stroke.



when such exertion is supported by armed force.—Coup de solcil. See Sunatroke.
Coupé (kö-på), a four-wheeled carriage for the driver outside.
Couple (kup'l), in dynamics, two equal and parallel forces acting in different directions and applied to the same body. The distance between their lines of action is called the arm of the couple, and the product of one of the two equal forces by this arm is called the moment of the couple.
Couple (kup'let), two verses or lines of poetry of equal length and rhythm, often embodying an idea of the nature of an aphorism.
Coupling (kup'ling), in machinery, a form is the flange or portion of a system of shafting with another, and of which there are various forms. A c or m mon form is the flange or plate couling, which there are various ends of the lengths of shaft to be connected, and firmly secured to an organ register. by which two or more rows of keys can be readily put on and off.—The term is also applied to gether.
Coupon (kű'pon: from Fr. cowper, to cut), an interest certificate printed at the bottom of transferable honds, and siven up when a pay-

or detached and given up when a pay-

# Coupon

## Courbevoie

ment is made. Also one of a series of tickets which binds the issuer to make certain payments, perform some service, or give value for certain amounts at different periods, in consideration of menor received.

different periods, in consideration of money received. Courbevoie (körb-vwä), a town of F'rance, department Seine, on the left bank of the Seine, 5 mues N. w. of 1'arıs, well built, with large barracks; pop. (1911), 38,138. Courier (köri-er), a bearer of special despatches, whether public or private; also an attendant on a party traveling abroad, whose especial duty is to make all arrangements at hotels and on the journey. Courland (kurland; German, Kur-

Traveling abroad, whose especial duty is to make all arrangements at hotels and on the journey. Courland (kur'land; German, Kur-land), a government in Russia. bounded N. by Livonia and the Gulf of Riga, w. the Baltie, S. Kovno, and E. by Vitebsk; area 10,5539 square miles; pop. 714,200. In the neighborhood of Mittau, the capital, the surface is diversi-fied by hills of very moderate height; but elsewhere, and particularly towards the coast, it is flat and contains extensive sandy tracts, often covered with heaths and morasses. About two-fifths of the whole government is occupied by wood-land. The pensautry are for the most part Letts; the more wealthy and intelli-gent classes Teutons, the prevailing re-ligion being Lutheran. The territory was subjected to Poland in 1561, conquered by ('harles XII of Sweden in 1701, and was merged in Russia in 1705. It was one of the new states formed by the Germans after the capitulation of Russia in 1917. A state council was created by the Ger-man imperial government to direct the in-ternal affairs of Courland. This con-sisted of barons, large land owners, and other members, all of the Germanie race. **Courser** (kör'ser), or ('Ottrier (C'ur-rial birds belonging to the plover tribe. They are found chiefly in Africa, but one species, the cream-colored courser, has been met with in Britain. **Coursing** (kör-sing), a kind of sport by greyhounds, which follow the game by sight instead of by scent. Meetings are held in various localities, at which dogs are entered for a variety of stakes, as horses are at a race meeting. When a hare is started it is allowed a certain advance on the 'slips' or cords held by the 'slipper' and fastened to the dogs' collars. A judge keeps his eve on the dogs, and notes what are called 'points,' the victory being adjudged to the dogs which makes the most 'points.'

Courtesy Title Court (kört). (1) All the surround state; the body of persons who compose the household of, or attend on, a sover-eign. Presentation at Court is a formal introduction of persons of some eminence or social standing to the British sov-ereign on certain state occasions appoint of for the purpose. They have to appear in the regulation 'court dress,' (2) A tribunal of justice; the hall, chamber, or place where justice is administered, or the persons (judges) assembled for hearing and deciding causes, civil, crim-in, military, naval, or ecclesiastics! ('ourts may be classified in various ways, A common distinction is into courts of these the judicial proceedings of which are enrolled in records. They may along the divided into courts of original jurisdic-tion and courts of appeal, or of appeals to and courts of appeal, or of speelists wirediction, inferior and superior courts the fund under such separate beadings. Court-baron, in England, a court holders of a manor, presided over by the courts there long fallen into disuse. Court de Gébelin (Körd-shä-blan). Trench writer, born in 1725; died in 1784. He published, in 1773 and 1774 a Monde Primitif Anslysé et Compare the Monde Primitif Anslysé et Compare the Monde Primitif Anslysé et Compare around bister et diserted in volumes had appeared, remained un-tionshed. Its vast plan embraced diserted in volumes had appeared, remained un-tionshed. Its vast plan embraced in server around holders, which, after nin-volumes had appeared, remained un-volumes had appeared, remai

courtesy.

courtesy. Courtesy Title, a title assumed by given to him by popular consent, to which he has no valid claim. When a British nobleman has several titles it is neual to give one of his inferior titles to his eldest son. Thus, the eldest son of the Duke of Bedford is Marquis of Tavistock, and the Duke of Buccleuch's eldest son is Earl of Dalkeith. The younger sons of noblemen have the courtesy title of Lord prefixed to their names, as Lord William Lennox. In Scotland, the eldest son of a



to hear and determine all claims founded upon any act of Congress, or on any regu-lation of any executive department or upon any contract, express, or implied, with the government of the United States; and all claims referred to it by either house of Congress.

house of Congress. Court of Love, in the chivalric ages, a court composed of knights, poets and ladies, who discussed and gave deci-sions on subtle questions of love and gal-lantry. The first of these courts was probably established in Provence about the iwelfth century. They reached their highest splendor in France, under Charles VI, through the influence of his consort Isabella of Bavaria, whose court was established in 1380. An attempted re-vival was made under Louis XIV by Cardinal Richelieu.

Court HandCousinviscount or baron has the courtesy title<br/>of Mester, as the Master of Lovat, eldest<br/>towen the French and Flemings, took<br/>place. It is well built, and contains many<br/>hadsome streets. Pop. 34,664.Court Hand, hand or manner of<br/>writing used in records and judicial pro-<br/>creadings, and distinguished from the ord<br/>era or Italian style.Here, in 1302, the 'battle of spurs' be-<br/>place. It is well built, and contains many<br/>hadsome streets. Pop. 34,664.Court Leet, in English history the<br/>era or Italian style.er of the so-called Eclectic school of<br/>philosophy, was born at Paris in 1792;<br/>of the so-called Eclectic school of<br/>philosophy, was born at Paris in 1792;<br/>ed dat Cannes in 1807. It evas educated<br/>to the lord of the<br/>manor. The right to hold it was granted<br/>in 1811. It is mind was directed to-<br/>by royal franchise to the lord of the<br/>manor. In some parts of England court<br/>officers, for the trial of military or naval<br/>officers, for the trial of military or naval<br/>of philosophy at the Sorbonne. Ile had<br/>an supointment at the Lycée<br/>Nupoléon, or Collège Henri IV, and at<br/>successor, nad he became, by the influence his<br/>court of Stong, in the United State<br/>spince its establishment several inportant<br/>originally based on the dogmatic teaching<br/>sting and eleming, in the United State<br/>spince its establishment several inportant<br/>originally based on the dogmatic teaching<br/>tinpotention of any executive department or<br/>were thenceforth m entered the Council of Public Instruction, to which he presented valuable reports on the state of public education in Ger-many and Holland. In the cabinet of Thiers in 1840 he accepted the office of minister of public instruction, and was created a peer of France. The revolu-tion of 1848 brought his public career to a close. The head and founder of the modern school of eclecticism in France. he borrowed from many sources. Ilis eclecticism was based on the principle that every system, however erroneous, which has anywhere commended assent. contains some elements of truth, by which established in 1380. An attempted re-which has anywhere commended assent, vival was made under Louis XIV by contains some elements of truth, by which its acceptance may be explained, and that **Court, Presentation at**, a formal it is the business of philosophical criti-tion to the sovereign of Great Britain of tered elements of truth. The follow-persons socially entitled to that distinc-ing are among his works:—Fragments tion. It takes place either at St. James' Philosophiques (1826): Noureaux Frag-Palace or Buckingham Palace. The days ments Philosophiques (1828): Cours de of presentation are announced some time beforehand. **Courtrai** (kör-trä; Flemish, Kortryk), Histoire de la Philosophie (1828); a fortified town, Belgium, huitième Riècle (1829): De la Métaphy-28 miles south of Bruges, on the Lys.

## Cousin

Pop. 6599. Couthon (kö-töp), GEOBOES, a noted French revolutionist, was born in 1756, and was bred to the profes-sion of a lawyer. Some time after the revolution he was chosen a member of the national assembly, and allying him-self with Robespierre aided and abetted the latter in all his atrocities. On the downfall of Robespierre's party Couthon shared, along with him and St. Just, in the decree of arrest, and was guillotined, July 28, 1794.

Scholastique (1840); Du Vrai, de Beau et du Bien (1854), etc. Cousins (kuz'ns), SAMUEL, an English engraver, born in 1801; died and the subscribed in 1500 and 1508. Cousins (kuz'ns), SAMUEL, an English engraver, born in 1801; died and the subscribers engaged by oath to in 1887. He engraved plates after Law-maintain religion in the same state as it rence, Landseer, Reynolds, Millais, Leslie, was in 1580, and to reject all innova-Eastlake, Ward, etc. He was elected a tions introduced since that time. The Royal Academician Engraver in 1855, Solemn League and Covenant was a and when this class was abolished he be-came an Academician proper. Coutances (kö-täps), a town of land and commissioners from the English Manche, on a hill about 4 miles from the a uniformity of doctrine, worship and sea, with which it communicates by a discipline throughout Scotland, England canal. It has a fine old cathedral crown-ing the hill on which the town stands. Pop. 6599. Couthon (kö-tön), GEORDES, a noted Nanche, revolutionist, was land. land.

Pop. 6599.
 Couthon (kö-tön), Geomors, a noted bar and the control of providence of arritament, both in England and Scotland, both in England and Scotland.
 born in 1756, and was bred to the profession of a lawyer. Some time after the revolution he was chosen a member of the national assembly, and allying him self with Robespierre aided and abetted from the party which struggled to the prevalence of arrest, and was guilloined, July 28, 1794.
 Couvade (Kö-väd'), a singular custom so modern times among some of the prevalent in ancient as well as some of the prevalent in ancient as well as some of the prevalent in ancient as well as some of the prevalent in ancient as well as some of the prevalent in ancient as well as some of the prevalent in ancient as well as some of the prevalent in ancient as well as some of the prevalent in ancient as well as some of the prevalent in ancient as well as some of the prevalent in ancient as well as some of the prevalent in ancient as well as some of the prevalent in ancient as well as some of the prevalent in ancient as well as some of the prevalent in ancient as well as some of the prevalent in ancient as well as some of the prevalent in ancient as a seditions, and to frequent provided them croweld the actored to a schediely and the prevalent between two of and some and elivered, whereas the negroes, the borders of Ayr and Lanark shires the and elivered, whereas of the rebuiling of the prevaled was indexed in the scriptions, the provide as revealed in the Scriptions of God as revealed in the Scription and some prevaled as chorders of Ayr and this defeat, alarmed the prevalence, the the of and as sobeliend act. The some transitor of the prevale in writing, signed, sould be a thereas the prevaled as the prevaled in the Scription response of the prevale as and the some transe of the prevalent as the prevalent and between two as an and sublects were and a subsequent proclamation in 1694.



# **Covent Garden**

the government proceeded to more severe measures. An oath was now required of all who would free themselves of suspicion of complicity with the Covenatters; and the dragoons who were sent out to hunt down the rebels were empowered to kill anyone who refused to take the oath. During this 'killing time,' as it was called, the sufferings of the Covenanters were extreme; but notwithstanding the great numbers who were put to death, their fanatic spirit seemed only to grow stronger. Even after the accession of William some of the extreme Covenanters refused to acknowledge him, owing to his acceptance of episcopacy in England, and formed the earliest dissenting sect in Scotland. See Cameron (Richard), and Reformed Presbyterians. Covent Garden (k u v'ent; that is, content of the garden belonging to the abbot and monks of Westminster. In 1831 the present market buildings were erected by the Duke of Bedford, the pro-prietor of the ground.—COVENT GARDEN THEATER sprang out of one in Lincoln's-Inn-Fields, through a patent granted to Sir W. Davenant in 1662. It is assothe government proceeded to more severe

Coventry (ku v'en-tri), a city of a bishop early conjoined with lichfield rariaments were convened here by the arean and processionally resided in the place. The same of these still exists in the processionally non-solution of tability of the result and had twelve gates, and was the see of a bishop early conjoined with Lichfield. Parliaments were convened here by the artisments were convened here by the resting the gates. These still exists in the processional show in honor of Lady Godiva. (See Godiva.) There are still a few narrow and irregular streets, lined work are staple lines of business. Pop. 106,377.
Coventry, Island, 18 miles 8. W, of Providence. It has manutactures of conventions. Coventry, Island, 18 miles 8. W, of the ribbon trade, and silk-dycing. To vidence. It has manutactures of conventions. Cove of Cork. See Quecantorn.
Cove of Cork. See Quecantorn.
Covendela (kov'er-ddl). Muss. the Covening the best producer, from its large size is classed among the best producer, from its large size is classed among the best producer, from its large size is classed among the best producer, from its large size is classed among the best producer, from its large size is classed among the best producer, from its large size is classed among the best producer, from its large size is classed among the best producer.

Cove of Cork. See Queenstoien.

**Coverdale** (key'er-dùl), MIES, the earliest translator of the Bible into English, was born in York-whire in 1487; died in 1568. He was educated at Cambridge and was ordained priest in 1514. He was led some years

afterwards to embrace the reformed doctrines, and, having gone abroad, as-sisted Tindall in his translation of the Bible. In 1535 his own translation of the Scriptures appeared, with a dedica-tion to Henry VIII. Coverdale was almoner to Queen Catharine Parr, and officiated at her funeral. In 1551, during the reign of Edward VI, he was appointed Bishop of Exeter, but was ejected on the accession of Mary, and thrown into prison. After two years' confinement he was liberated, and proceeded first to Denprison. After two years' confinement he was liberated, and proceeded first to Den-mark, and subsequently to Geneva, where he was employed in preparing the Geneva translation of the Scriptures. On the accession of Elizabeth he returned to England, and held for a short time the rectory of St. Magnus. London Bridge.

**Coverture** (kov'ér-tûr), a legal term applied to the position of a woman during marriage, because she is under the cover or protection of her hus-

band. Covilhao (kö'vēl-youn), a town ot Castello Branco, Portugal, on the s. E. slope of the Sierra da Estrella.

dairy cows, while the fromer, from its large enormous milk producer, from its large size is classed among the beef-producing breeds as the Durham. See Ox. **Cowbane** (kou-bân), or water-hem-lock, ('icùla rirôsa, a per-

ennial, umbelliferous, aquatic plant, pro-ducing an erect, hollow, much-branched, striated stem, 3 or 4 feet high, with dis-sected leaves. It is highly poisonous.

## Cowbane

# Cowberry

Cowberry, the Vaccinium Vitis idæa, procumbent shrub of high moorlands in Europe, Asia and North America. It has evergreen, box-like leaves, and pro-duces a red acid berry used for jellies and preserves. Named cowberry because in parts of Scotland the berries are used to thicken milk by being rubbed on the inside of milk-pails. Cowbird (Molothrus ater), a com-mon bird of North America, larger than the English sparrow and be-longing to the family Icteridæ, the Ameri-can starlings i. Like the Euro-penn cuckoo the cowbird builds i. Description of the family intervent of the family intervent inside of milk-pails. Cowbird (Molothrus ater), a com-mon bird of North America, larger than the English sparrow and be-longing to the family Icteridæ, the Ameri-can starlings in blackbirds. Like the Euro-penn cuckoo the cowbird builds



COWBIRD Young being fed by Yellow-throat.

tar sout hern states and nests generally north of Virginia and in moun-tain sections farther south. The name cowbird is derived from its habit of fre-quenting pastures and perching on and about the cattle. Cowhove

**Cowboys**, a term first used during applied to a band of Tories who infested the neutral ground of Westchester County. New York, stealing cattle from both parties and doing other mischief. It has been used of recent years to designate parties and doing other mischief. It has been used of recent years to designate the skilled horsemen who have charge of the cattle on the great ranges of the West. Many of them enlisted in the Rouch Rider regiments of the Spanish war and proved daring soldiers. **Cowen** (kou'en), FREDERICK HYMEN, musical composer, born at Kingston, Jamaica, in 1852. Among his works are Rose Maiden, St. Ursula and Sleeping Beasty, cantatas: Pauline, op-era: The Deluge, oratorio; and many popular songs.

popular songs.

Cowitch, or Cowhage (kou'ich, kou'-hairs of the pods of leguminous plants, genus Mucina, natives of the East and West Indies. The pod is covered with a thick coating of short, stiff, brittle, brown hairs, the points of which are finely serrated. They easily penetrate the skin. and produce an intolerable itching. They are employed medicinally (being taken in honey or syrup) as a mechanical vermi-fuge. fuge.

are employed medicinally (being taken in honey or syrup) as a mechanical vermi-fuge. Cowley (kou'li), ABRAHAM, an Eng-his day, was born at London in 1618; died in 1607. He published his first volume, Poctic Blossoms, at the age of fifteen He entered Trinity College, Cambridge, in 1633, but was ejected as a royalist in 1643, and removed to St. John's College. Oxford. He engaged actively in the royal cause, and when the queen was obliged to quit England, Cowley accompanied her. He was absent from his native country nearly ten years, and it was principally through him that the correspondence was maintained between the king and queen. On the restoration he returned with the other royalists, and obtained the lease of a farm at Chertsey, held under the gueen by which his income was about £300 per annum. Cowley's poems have failed to maintain their ancient popularity, but he still holds a high position as a proce writer and as an essayist. He took a considerable interest in science, and was one of the founders of the Royal Society. His chief works are: Lore's Riddle, a pastoral comedy: Darideis, a scriptural epic: Naufragium Joculare; The Mie-tress, a collection of love verses: Pindarique Odes. Liber Plantsrum, etc. **Cowloon** (k o u'lön), Kownon, or **Cowloon** (k o u'lön), Kownon, or posite to the 'sland of Hong-Kong, to which crown colony it belonga.

Which crown colony it belongs. Cow-parsnip, an umbelliferous plant, genus Heracleum, one species of which, H. Sphondylium, found in moist woods and meadows in England, grows to the height of 4 or 5 feet, and is used to feed to pigs. Siberian cow-parsnip (H. gigantëum) is grown in gar

# Cowpea

Cowpea dens and shrubberies, reaching the height of 10 or 12 feet. H. isnstum is a common United States species. Cowpea, Cow GEASS, Trifolium me-cultivated in England and some parts of the United States for the same purpose as the common red clover (T. pratense). Cowper (kö'per or kou'per), Williak, an English poet, b or n at Berkhampstead in 1731; died at East Dereham, in Norfolk, in 1800. He was the son of a clergyman; lost his mother at the age of six, and was, when ten years of age, removed from a country school to that of Westminster, which he left at eighteen with a fair reputation for classi-cal learning, and a horor of the school discipline, which he afterwards expressed in his Tirocinium. He was then appren-ticed for three years to a solicitor, where he had for a fellow clerk Mr., afterwards Lord Thurlow. At the expiration of his apprenticeship he took chambers in the Middle Temple, and in 1754 was called to the bar. The interest of his family pro-rured for him the post of clerk to the House of Lords; but having to appear for examination at the bar of the house, his nervousness was such that on the very day appointed for the examination he resigned the office, and soon after be-came insane. From December, 1763, to June, 1765, he remained under the care of Dr. Cotton at St. Albans. The skill and humanity of that gentleman restored him to health, and he retired to Hunting-dom. Here he made the acquaintance of the Rev. Mr. and Mrs. Unwin, whose kindness, particularly that of the latter, seemed to have the most soothing and beneficial influence on him. On the death of Mr. Unwin, in 1767, he removed with Mrs. Unwin to Olney, the residence of the Rev. John Newton, who also became an intimate friend and exercised a power-ful influence over his mind and conduct. Newton had resolved on publishing a Mrs. Unwin to Olney, the residence of the name is also given to other shells the Rev. John Newton, who also became of the genus Cypras. an intimate friend and exercised a power-ful influence over his mind and conduct. Newton had resolved on publishing a dia cerie, order Primulecae, a fragrant volume of hymns, and secured the co-operation of Cowper in composing them, and meadows. It has umbels of small, but before their publication in 1776 he had been again attacked by his constitu-tional malady, by which, for ten years erties, and have been used as an anodyne, from 1773, his mind, with occasional in-tervals of recovery, was continually **Cow-trees**, a name of various trees clouded. In 1776, by Mrs. Unwin's ad-vice he commenced a poem on the Prog-miky juice, especially Brosimum Galac-ress of Error, which he followed by todendron, a South American tree, order three other poems, Truth, Table Talk Artocarpaces (breadfruit), which, when and Expostulation; these with several wounded, yields a rich, miky, nutritious others were published in a volume in 1782, juice in such abundance as to render it Another female friend, Lady Austen, sug-an important a ticke of food This fluid gested the Task, which, together with resembles the appearance and quality the Frominum, formed a second volume in milk of the cow. The tree is common 1355. The History of John Gilpin is also

Cow-trees

due to the suggestion of Lady Austen. The translation of Homer, begun in 1784, occupied him for the next six years, and was published in 1791. He removed dur-ing its progress, in 1786, from Olney to Weston. In the beginning of 1794 he was again attacked with madness, which was aggravated by the death of Mrs. Unwin in 1796. The revisal of his Homer, and the composition of some short pieces, occupied the latter years of his life. He is considered among the best of English descriptive poets, and is one of the most easy and elegant of letter-writers. **Cowpox**, the vaccine disease which cow, in the form of vesicles of a blue color, approaching to livid. These vesicles are elevated at the margin and depressed at the center; they are surrounded with inflammation and contain a limpid fluid.

at the center; they are surrounded with inflammation and contain a limpid fluid. This fluid or virus is capable of com-municating genuine cowpox to the human subject, and of protecting against small-pox either completely or, at least, against the virulent form of the disease. See Vaccination.

Cowrie-pine (kou'ri). See Kauri.

**Cowrie-pine** (kou'ri). See Kauri. **Cowrie-shell**, a small gasteropodous mončta, used for coin in some parts of Africa and in many parts of Southern Asia. The beauty of the cowrie-shells has procured them a place among orna-ments, and they have been in demand among civilized and uncivilized nations since prehistoric times. The shells used as currency occur principally in the Philip-pine Islands. They vary in value in different localities. In India 6000 to 7000 are equal to a rupee, while in the interior of Africa 200 are worth 16c. The name is also given to other shells of the genus Cypras. **Cowslip** (kou slip), the popular name *üla veris*, order Primulaeee, a fragrant and meadows. It has umbels of small, buff-yellow, scented flowers on short ped-icels. Its flowers possess solative prop-erties, and have been used as an anodyne, a sort of whe being prepared from them.

Cox
Northe Laberty leaves. It yields a small species, though considerably large of mile.
Cox, hardscape painter, born in Dinitation (1752-1859), an English induced a grant deal in oil.
Cox, hardscape and in water colors. In the formed the formed the formed the formed the formed the second lines.
Cox, 1982), an English writer; nuther.
Cox, Anore Dolsson (1828-1980), an the pictures of the council had on the formed the full offer, and painter bern duced a grant deal in oil.
Cox, Anore Dolsson (1828-1980), an the pictures of the council had on the formed the full offer, and painter duced a grant deal in oil.
Cox, Anore Dolsson (1828-1980), an the pictures of the council had on the formed the full offer, and painter duced a grant deal in oil.
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Cox, Anore Dolsson (1828-1980), an the matter of the matter of the second of the

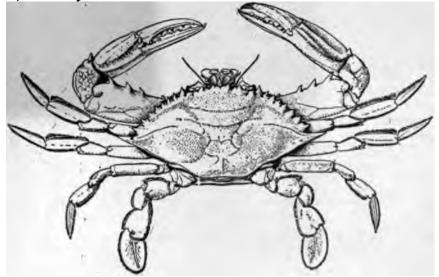
sign in 1903 **Cox.** Privie (1840-1), artist and methods the Cherchar Grathy, Quebec, Herman Marker, the removed to C. Fortila and later to New York. The is best known for less Brownie R. E. S. with their numbers is illustrations, **Cox.** South a Structure of the second second cover the second s 18(2) 80

Crab, a popular name for all the ten-constituting the suborder Brachyura, or der Decapoda, comprising many genera, distinguished from the lobster and other macrurous or long-tailed decapods by the slortness of their tail, which is folded under the body. The head and breast are unated, forming the cephalothorax, ard the whole is covered with a strong cara-pace. The mouth has several pairs of strong has its internal surface studded with hard projections for the purpose of grinding the food. The stomach is popu-larly called the 'sand-bag'; a little be-bind it is the heart, which propels a color-less lymph (the blood) to the gills ('dead tran's ungers'). The liver is the anft, rich, yellow substance usually called the Coyote the action or klicht, the prairie fat of the erab. Crabs 'molt' or throw of the real. Crabs 'molt' or throw of the real. Crabs 'molt' or throw off their calcureous covering, periodically thus, we that the Messissippi, and is locomotion, but is furnished with strong

#### Cox

ciaws OP vite DOW diam. mlet They tano

are com- folk, in 1754; died at Trowbridge, Wilts, and are in 1832. Having been educated for the vable. medical profession, he settled as a surgeon which are as soon finding his practice insufficient to merally live on afford him a livelihood, he resolved to try though others his fortune as littéreteur in London. He as, as the racer-which suck the Burke, published his poem the Library,



Common Edible or Blue Crab (Cancer pagurus).

Common Edible or Blue Crab (Cancer pagerus).
juice of the sugar-cane. Most inhabit the sand soon after entered the church. He was appointed domestic chaplain to the building, only going to the sea to spawn. Of the crabs, several species are highly estemed as an article of food, and the fishery constitutes an important trade on many coasts. The common large edible or *Subsect and in Songh appeared in 1807. The Borrowith Cancer pagurus*) is common on our shores, and is much sought after.
Crab, a name given to various in 1812, by Tales in Verse, and in 1819 to a kind of portable windlass or machine for raising stones or other weights, and in loading and discharging vessels.
Crab-apple (Purus Malus), a small of the apple; also any sour or uncultivated species or variety. See Apple.
Machines, expectable of the section of the apple; also any sour or uncultivated species or variety. See Apple.
Machines, born at Aldborough, Suferna and in bord of the species of variety of the species of variety of the species of variety. See Apple.
Machines, end the state of the species of variety of the species of variety of the species of variety. See Apple.
Machines, born at Aldborough, Suferna and the glaze of appears to be cracked all over.

# Cracow

**Cracow** (krá'kö: Polish Krakow), a city of S. W. Poland, on the Vistula, 160 miles s. w. of Warsaw. It was the ancient capital of Poland and residence of the Polish kings, and was for a time a republic, 1815-46. It was in-cluded in the Austrian crown land of Galicia until the end of the World war (1918) which resulted in the disruption of Austria-Hungary and the re-establish-ment of Poland. (See European War.) Its fine old Gothic cathedral has monu-ments of Kosciusko and the Polish kings. The university was founded in 1364; it has a library of 300,000 volumes. It has manufactures of machinery, textiles, etc., and a large trade in grain, timber, etc. Pop. (1920 estimate) 170,000. **Craddock**, CHABLES EGBERT, pseudo-nym of Mary N. Murfree (q. v.).

(q. v.).

(q. v.). **Cradock** (kra'dok), SIE CHRISTOPHEE admiral, commander of the Atlantic fleet. He went down with his flag ship, the Good Hope, in a battle with the German squad-ron off Coronel, Chile, November 1, 1914. **Crafton** (kräf'ton), a borough of Alle-gheny Co., Pennsylvania, ad-joining Pittsburgh, in a coal and oil re-gion. It has some manufactures. Pop. 5954. gion. 5954.

**5954.** American and anticulture. Figh. **Crafts,** WILBUE FISK (1850-), an american clergynan and au-thor, born at Fryeburg, Maine, educated at Wesleyan University and Boston Uni-versity Theological School. He was pas-tor of Methodist Episcopal and Presbyte-rian churches. Author of *The Ideal Sunday* School, Talks to Boys and Girls About Jesus, Practical Christian Sociology, etc. **Crag and Tail**, CRAIG AND TAIL, in geology a name applied to a hill formation common in Britain, in which a bold and precipitous front is presented to the west or north-west, while the opposite side is formed of a sloping declivity.

nal judicature of the country as justiv-depute. He is now chielly remember-by his Treatise on Feudel Law. Craik (kråk), DINAH MARIA, an En upon-Trent in 1826, her father's name being Mulock. She became the wife George Lillie Craik (a nephew of the subject of next article) in 1865. She published a volume of poems under the title of Thirty Years; many essays ar papers on ethical and domestic subject books for young people, and abo twenty-four novels, the best of which ar John, Halifaz, Gentleman; A Life f books for young people, and alo twenty-four novels, the best of which ar John Halifaz, Gentleman; A Life f a Life, Agatha's Husband and T Woman's Kingdom. She died in 1887. **Craik**, GEORGE LILLE, a miscellar Fifeshire in 1799, and died at Belfa June 25, 1866. Ile was an extensi contributor to the Penny Cyclopadis the departments of history and biog phy. His first independent work any importance was his Pursuit Knowledge under Difficulties (1830-31. Other works were: Romance of the Pec-ge: Spenser and his Poetry; History O Literature and Learning in Englavad afterature and the English Lam-mange; History of English Commerce; English of Shakespere; Bacon, his Writ-ings and Philosophy; etc. In 1849 he was appointed professor of English literature in Queen's College, Belfast, an appointment which he held till his death. **Crail** (kräl), a royal and parliament-tury burgh and seaport of Scot-hund, in Fifeshire. It is a very ancient burgh, and has remains of a priory col-lege and ruins of an old castle once a royal residence. Pop. 1145. **Crake.** See Corncrake. 2 in England.

Crake. See Cornerake.

applied to a hill formation common in Britain, in which a bold and precipitous front is presented to the west or north-a sloping declivity. Craig (kräg), JOHN, a Scottish re-former, born in 1512: died in 1600. He became Knox's colleagne in Edinburgh, refused to publish the banns between Mary and Bothwell, assisted in drawing up the Second Book of Disci-pline, and compiled the National Core-nant, signed by the king in 1580. Craig, SIR THOMAS, a Scottish writer and, single of the surger of the same of the same of the same of the plant, and compiled the National Core-nant, signed by the king in 1580. Craig, SIR THOMAS, a Scottish writer was educated at the University of St. Andrews, and afterwards repaired to France, where he studied civil and canon hw. He returned about the year 1501, and was placed at the head of the crimi-



THE GREAT 350-TON CRANE AT THE PHILADELPHIA NAVY YARD

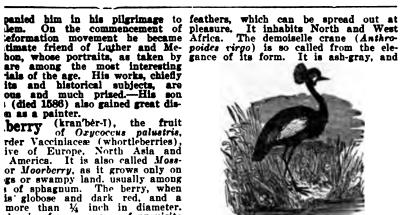
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# berry

America. It is also called Mose or Moorberry, as it grows only on go of sphagnum. The berry, when is globes and dark red, and a more than ¼ inch in diameter. berries form a sauce of exquisite and are used for tarts. The can cranberry, a native of Canada to Links larger borries than the ean species, and is extensively cut-i in some localities. Vaccimium drace, the cowberry, is often called anberry in Scotland. brook (kranbry), is often called of Edward III. Pop. 13,089. c. (kranbry, is often called of Edward III. Pop. 13,089. c. (kranbry, is often called of Edward III. Pop. 13,089. c. (kranbry, used for a small of Edward III. Pop. 13,089. c. (kranbry, is often called ablerry in Scotland. brook (kranbry, is often called of Edward III. Pop. 13,089. c. (kranbry, is often called stabilished by the Flemings in the seminently fit them for living in swhere they usually seek their This is partly of vegetable mat-is they also devour insects, worths, it regions, and perform voyaces as in for their great length. The area (*Gruss cineria*) has the in for their great length. The in crane (*Gruss cineria*) has the in future feathers, the head with feathers (*Gruss cineria*) has the in crane (*Gruss cineria*) has the in promage ash-gray, the throw the rump ornamented with low, i. Ti inhabits Europe. Asia and print of Africa. The crowned crane is device of bis designs for tapestry is general plumage bulkh ash-gray, is entitie feathers, the head with feathers in the crowned crane is dwith a tuft of slender yellow. The Albert gold medial of the Society of it and primary quills black, the overts nure while : the head is ed with a tuft of slender yellow.

Urane-fly



#### Crane's-bill

dia), remarkable for the length of their legs. Tipula oleracea is the well-known Daddy-long-legs, whose larva is very destructive to the roots of grain crops, etc.

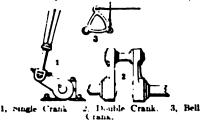
Many species are American plants; some are mere weeds, others extremely showy. See Geranium.

showy. See Geranium. Cranganore (kian'ga-nôr), a town in Hindustan, presi-dency of Madras, state of Cochin, on the Malabar coast. Pop. 9475. It is the traditional field of St. Thomas' labors in India. Jews have been settled here since the fourth century; and it is cer-tain the Syrian church was established before the ninth.

Craniology (krA-ni-ol'o-gi), the sci-ence which investigates the structure and capacity of the skull in various animals. It is sometimes also used as synonymous with phrenology. See Phrenology. Cranium

Cranium (cra'ni-um). See Skull.

**Crank,** an iron axis with the end as a handle for communicating circular motion; as, the *crank* of a grindstone; or for changing circular into longitudi-nal motion, as in some sawmills, or longitudinal into circular motion, as in a steam engine. The single crank (1)



**Cranmer** Henry VIII: born at Aslockton, Notta, in 1489: executed by burning at Ox-ford in 1550. He entered as a student of Jesus College, Cambridge, in 1503, took the degree of M.A., obtained a fellow-ship, and in 1523 was chosen reader of theological lectures in his college, and examiner of candidates for degrees in divinity. An opinion which he gave on the question of Henry VIII's proposed divorce from Catharine brought him under the favorable notice of the king. Cranmer was called to court, made a king's chaplain, and commanded to write a treatise on the subject of the divorce. In 1530 he was sent abroad with others to collect the opinions of the divines and canonists of France, Italy and Ger-many, on the validity of the king's mar-riage. At Rome he presented his treat-ise to the pope, but his mission was founded Archbishop of Canterbury. Soo after he set the papal authority at de-babeven Henry and Catharine, and cou-firming the king's marriage with Ana-Boleyn. The pope threatened ex-omman folelyn. The pope threatened ex-omman for the subject of an endishing the pope's supremacy, and declaring the king fratiented for the Church of England The archbishop zealously promoted the frause of the Reformation : and through the king's favor, who appointed him in the king's favor, who appointed him by promoting the divorce of Anne Beleyn. This and other services secured him in the king's favor, who appointed him by promoting the divorce of Anne Beleyn. This and other services secured him in the king's favor, who appointed him by promoting the divorce of Anne Beleyn this means the Bible was translated and read in churches, and monastic institu-tions were vigorously suppressed. Its fin heurches, and monastic institu-tions were vigorously suppressed and read of the Reformation : and through the king's favor, who appointed him by which was enforced by royal authority, and for which infallibility was claimed the crown, by the will of her brother. which was enforced by royal authority, and for which infallibility was claimed. The exclusion of the Princess Mary from the crown, by the will of her brother, was a measure in which Cranmer joined the partians of Lady Jane Grey, ap-ment. With others who had been most active in Lady Jane's favor he was sent to the Tower on the accession of Mary. He was tried on charges of blaphemy, perjury, incontinence and heresy, and was sentenced to be degraded and de-prived of office. After these flattering promises were made, which induced him 1. Single Crank 2. Double Crank, 3, per Crank Cr

St. Mary's Church, Oxford, to read his recantation in public, instead of confess-ing the justness of his sentence, and sub-mitting to it in silence or imploring Many species of Crassula, Scmpcreivum, mercy, he calmly acknowledged that the fear of death had made him belie his conscience; and declared that nothing The genus Sedum is the most largely rep-could afford him consolation but the prospect of extenuating his guilt by en-countering, as a Protestant peniterit, with firmness and resignation, the fiery torments which awaited him. He was of his vast riches, was born about B.C. Immediately hurried to the stake, where 115; died in B.C. 53. He took part with be behaved with the resolution of a martyr. Crannogs (kran'os), the name given the platforms supported by piles in lakes, which were in use as dwelling-places and places of refuge among the old Celts.

immediately hurried to the stake, where be behaved with the resolution of a martyr. Grannogs (kran'ors), the name given the platforms supported by piles in lakes, which were in use as dwelling-places and places of refuge among the old Celts. Bee Leke Dwellings. Grantara (kran'ta-ra; Gael, crean-tarigh), the fiery cross, an ancient Gaelic rallying symbol, the neg-lect of which implied infamy. Granston (kran'ta-ra; Gael, crean-ship) of Providence Co. Rhode Island, w. of Narragansett Bay. Contains several manufacturing villages, reform schools. State prison. etc. Pop-(1910) 21.107; (1920) 20,407. Grashaw (kra'sha), R 1 C H A BD, an suff, like gauze, made of raw sik, gummed and twisted on the mill, woven without crossing, and much used in mourning and dressmaking. Grashaw (kra'sha), R 1 C H A BD, an London in 1013; died in 1049; educated at the Charterhouse and at Cambridge. In 1037 he became a fellow of Peterhouse, and having been admitted to orders was noted as an eloquent and powerful preacher. In 1644 he was ejected from his fellowship by the Parliamentarians, and proceeded to Paris, where he be-came a convert to the Roman Catholic faith, and was appointed to a canonry at Loretto. Epigrammata Sacra ap-peared in 1634; Steps to the Temple, Sacred Poems, with other Delights of the Musee, was published in London in 1043; side the London in 1046; and a posthumous volume appeared at Paris in 1052, under the title Car-men Deo Storo. Crashaw displays con-siderable poetic genius in the treatment of religious subjects, and though his works are now almost forgotten, they are said to have furnished hints to both Milton and Pope. Crassulacee (kr a s-u-la's e-ē), the ant. order: of polypetalous exogens. It faith, and was appointed to a canonry Grater Lake National Park, at Loretto. Epigrammata Sacra ap-peared in 1034; Steps to the Temple. of 159,300 acres in the Cascade Moun-Sacred Poems, with other Delights of tains, Oregon. Crater Lake (2014 sq. the Muses, was published in London in at Paris in 1052, under the title Car-extinct volcanic cone. men Deo Nostro. Crashaw displays con-siderable poetic genius in the treatment of religious subjects, and though his works are now almost forgotten, they crawfish being Astdcus furiatilis, the are said to have furnished bints to both Milton and Pope. Crassulaccee (k r a s-u-l ä's e-E), the lobster, a macrurous (long-tailed), to noisits of succulent plants, with herba-cous or shrubby stems, and annual or lurks under stones or in holes in the store are now almost forgotten. It was not an extinct to houseleek family, a inhabits the fresh waters of England. It crous or shrubby stems, and annual or lurks under stones or in holes in the

the first triumvirate. Five years later he again became consul, and obtaining Syria for his province he made war on the Parthians, but was defeated and slain. It is said that when his head was sent to Orodes, the Parthian king, he caused melted gold to be poured into the mouth, in scorn of his notorious love of wealth. of wealth.

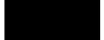
or wealth. Cratægus (kra-të'gus), the haw-thorn genus of plants. Crater (Zrā'ter), the orifice or mouth of a volcano. Craters may be central or lateral, and there may be several subsidiary ones, which may shift their places, or become merged by sub-sidence into others. Cratinus (kra-tī'nus), an Athenian comic poet to whom the in-

Cratinus (kra-ti'nus), an Athenian comic poet to whom the in-vention of satirical comedy is attributed; died in B. C. 422 at the age of 97. Cravat (kra-vat'), a necktie or neck-cloth usually worn by men; so called from Fr. Cravate, a Croat, be-cause this piece of dress was adopted in the eleventh century from the Croats who entered the French service. Crater Lake Notional T

Crater Lake National Park,



Adam and Eve, Hebe and Ganymede, Morcury and Psyche and Dancing Jenny. He performed important works for the National government and the State of Virginia.



# Creasote

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(1711)

Rhadamisto (1711). Xerres (1714). and Semiramis (1717). At the age of seventy-six he wrote the Triumvirate, or the Death of Cicero, which was brough upon the stage in his eighty-first year.— His son CLAUDE PROSPER, born in 1707; died in 1797; was in high repute for his wit and his writings. His chief works are: Le Sopha, La Hazard du Coin du Feu, and Les Egarements du Cœur et de l'Esprit, all of a licentious cast. **Crèche** (krāsh), a public nursery for the children of poor women who have to work out during the day. where for a small payment they are nursed and fed during the day, remain-ing with their parents at night. These institutions were first started in Paris in 1844; they were soon afterwards in-troduced into Great Britain, and are now common in large towns. Similar in-stitutions are called day nurseries in the United States. **Crécy**, or CRESSY (krā-sē, kres'si), the department of Somme, 9 miles north of Abbeville and 100 north of Paris; pop. 1748. It is celebrated on account of a battle fought here, August 26, 1346; between the English and French. Ed-ward III and his son, the Black Prince, were both engaged, and the French were defeated with great slaughter, 30,000 foot and 1200 horse being left dead on the field, among whom were the King of Bohemia, the Count of Alencon, Louis, Count of Flanders, with many others of the French nobility. **Credence** (révélens), a small table by the side of the altar or communion-table on which the bread and wine are placed before they are conse-crated. **Credit** (kred'it), in economics, is the postponenent agreed on by the parties of the payment of a debt to

wine are placed before they are conse-crated. **Credit** (kred'it), in economics, is the postponement agreed on by the parties of the payment of a debt to a future day. It implies confidence of the creditor in the debtor; and a 'credit system' is one of general confidence of people in each other's honesty, solvency, and resources. By means of a credit system a comparatively small stock of money can be made to do duty for carry-ing on a number of different transac-tions; but it is indispensable for every good system of credit that money must be instantly available when required, and this principle applies to every species of transaction where postponed payment is concerned. Public credit is the confi-dence which men entertain in the ability and disposition of a nation to make good its engagements with its creditors; or the estimation in which individuals hold the public promises of payment, whether

Credit

such promises are expressed or implied. The term is also applied to the general credit of individuals in a nation; when merchants and others are wealthy and punctual in fulfilling engagements; or when they transact business with honor and fidelity; or when transfers of prop-erty are made with ease. So we speak of the credit of a bank when general con-fidence is placed in its ability to redeem its rotes, and the credit of a mercantile house rests on its supposed ability and probity, which induce men to trust to its engagements. When the public credit is questionable it raises the premium on loans. loans.

ioans. Credit, LETTER OF, an order given by bankers or others at one place to enable a person to receive money from their agents at another place. Crédit Foncier (krā-dē fon-syā), a crédit Foncier pe cu liar mode of raising money on land in France, the peculiarity of which is that the advance must not exceed one-half of the value of the property pledged or hypothecated, and that the repayment of the loan is by an annuity terminable at a certain date. Several companies have been established by the French government with the privi-lege of making such loans. Crédit Mobilier (krā-dē mõ bēl-yā),

by the French government with the privi-lege of making such loans. Crédit Mobilier (krā-dā mō bēl-yā), originated in France in 1852, its ob-jects being to undertake trading enter-prises of all kinds on the principle of limited liability, to buy up existing trad-ing companies, and to carry on the busi-ness of bankers and stock-jobbers.— CREDIT MOBILIES OF AMERICA was char-tered in Pennsylvania, in 1859, for a general loan and contract busisess. The charter was purchased in 1867 by a company formed for the construction of the Union Pacific R. R., and a congres-sional investigation showed that a num-ber of congressmen were private owners of the stock. As the railroad had been assisted by grants of land by Congress it was considered highly improper for members to have a pecuniary interest in such a concern. The expulsion of one senator was recommended, and two rep-resentatives were censured. Cuead (kred), a summary of belief, tered in Pennsylvania, in 1859, for a It is much frequented by riflemen for general loan and contract business. The target practice. charter was purchased in 1867 by a **Creek** (krëk), a small inlet, bay, or company formed for the construction of the Union Pacific R. R., and a congres-sional investigation showed that a num-ber of congressmen were private owners assisted by grants of land by Congress it was considered highly improper for members to have a pecuniary interest in such a concern. The expulsion of one senator was recommended, and two rep-resentatives were censured. **Creed** (krëd), a summary of belief, together with the Latin credo (I be-cultivate tobacco, rice, and corn. Nicene Creeds though. These two creeds, are the most ancient authoritative Christian the most ancient formu-trees with the are preserved in the writ-ings of the early fathers, Irenaeus, Ori-gen, Tertullian, etc., which agree in sub-sertile tongue. The common creeper

pression. The Nicene Creed was so called from being adopted as the creed of the church at the Council of Niceas or Nice, 325 A.D., though its terms were subsequently somewhat altered. The Apostles' Creed probably dates from the end of the fourth century; but there is no evidence of its being accepted in its pres-ent form till the middle of the eighth. The Athanasian Creed was certainly not drawn up by St. Athanasius, as there is no sufficient evidence for its existence be-fore the end of the eighth or beginning of the ninth century. In addition to these three creeds, the Roman Catholic Church has the creed of Pius IV, put forth in 1604, and consisting of the Nicene Creed with additional articles adopted by the Council of Trent, to which is now added a profession of belief in the definitions of the Vatican Council. The English Church adopts as 'thoroughly to be re-ceived and believed' the three ancient creeds, which as part of her liturgy may be read in the Book of Common Prayer, but does not consider any of them to be inspired. Besides these creeds, there are numerous Confessions of Faith, which have been adopted by different churches and sects. The Thirty-nine Articles of the Book of Common Prayer form a confession of faith for the Anglican Church. The creed of the Church of Scotland and other Presbyterian churches is contained in the Confession of Faith, drawn up by the Westminfter Assembly of Divines, and completed in 1646. **Creedmoor** (kréd'mör), a station on the Long Island railway, 11 miles east of the city of New York. It is much frequented by riflemen for target practice. **Creek** (krčk), a small inlet, bay, or cove; a recess in the shore of the sea or of a river. In America and



# Crefeld

represented by American species. It is a pretty and interesting little bird, which builds its nest usually in holes or crev-ices of trees. The wall-creeper (*Tichod*-röms musrsris) of Southern Europe searches for its insect food on rocks. The family is found in all parts of the world world

#### Crefeld. See Krefeld.

city Cre

**Crema (krā'ma), a fortified** city of Northern Italy, province Cre-mona, on the Serio, 25 miles E. S. E. of Milan; pop. 8027. It contains a cathe-dral, picture gallery, etc. **Cremation** (krē-mā'shun), the de-struction of the bodies of the dead by fire or extreme heat. Cremation was generally practiced in ancient times instead of burial, and has recently been advocated on hygienic grounds. But the modern method is altoancient times instead of burial, and has recently been advocated on hygienic grounds. But the modern method is alto-gether different from the ancient, the slow-burning pile of wood being replaced by the closed furnace of high tempera-ture. Various methods of cremation have been proposed, the great difficulty being to consume the body without permitting the escape of noxious exhalations, and without mingling the ashes with foreign substances. In Siemens' process, a modi-fication of a plan of Sir Henry Thomp-son, this is successfully accomplished. Cremation societies have been instituted in many of the American States. **Crematory** (kr@ma-to-ri), a building in which cremation is practised. It contains a furnace beated to a very high temperature, into which the body is introduced and converted to ashes.

shes

Cremnitz. See Kremnitz.
Cremona (krč-mö'na), a city of Italy, capital of province of same name, on the left bank of the Po, 47 miles R. E. by E of Milan. It is surrounded by walls and wet ditches, its circumference being nearly five miles. The most remarkable edifice is the cathedral, begun in 1107 and completed about 1491. Close by, and connected with the cathedral, bey and connected with the cathedral, is the 'Torazzo, one of the loftiest and most beautiful towers in Italy. Cremona is the seat of a bishopric, and has considerable manufactures of silk, wool, cotton, etc. It was at one time celebrated for its violins, especially those made by Antonio Stradivari, Joseph Guarnerius, and members of the Amati family. Pop. 39.344. The province has an area of 605 square miles and a population of 327,802.
Crenelle (kre-nel), an embrasure in the seat in the seat of the seat in the seat of the seat

Crenelle (kré-nel), an embrasure in an embattled parapet or

breastwork. The adjective crenellated in applied in architecture to a kind of embattled or indented molding of fre-quent occurrence in buildings of the Nor-

quent occurrence in buildings of the Nor-man style. Creole (krő'ől; Spanish, criollo) is the name which was originally given to all the descendants of Spaniards born in America and the West Indies. It is now used in a wider sense to signify the descendants of Europeans of any nation born in South America and the West In-dics, as well as in some other localities. *Creole dialects* are those jargons which originated from the mixture of different languages in the West Indies, Southern United States, etc., and are spoken by the descendants of the slaves. According to the European language which prevails in a Creole dialect it is called Frenck creole, Npanish crcole, etc. Npanish crcole, etc.

#### Creosote. See Creasote.

Crescendo (kreshen'dõ), or CERA (Italian), a musical term signifying that the notes of the passage over which it is placed are to be gradually

swelled. Crescendo passages are marked signfying piano to forte; the cor-responding mark <u>diminuendo</u>, or decrescendo, marking the transition from forte to piano

Gerescendo, marking the transition from forte to pinno Creso ent (kres'ent; Lat. crescens, growing), an emblem rep-resenting the noon in her horned state. This emblem is of very high antiquity, being that of the Greek goddess Artemis or Diana. It is found on medals of many ancient cities, particularly of Bysantium, from whence it is supposed to have been borrowed by the Ottomans. Since their establishment in Europe it has been the universal emblem of their empire. The cressent has given name to a Turkish order of knighthood from the form of the hadge, instituted by Selim, Sultan of Turkey, in 1801. Crescentiacese (kressen-ti-fises).

Crescentiaceæ (kre-sen-ti-å'se-ē), a small family of corol-Crescentiaces small family of corol-lifloral dicotyledons, of which the genus ('reaccutia, the calabash-tree, is the type, **Crespi**, (kres'pi), GIUSEPPE MARIA, an Italian painter of the Bolog-nese school, born at Bologna in 1685; died in 1747. He had many scholars, among whom were his two sons Antonio and Luigi Crespi. The latter distinguished himself by his writings on painting. Cres-pi is also known as an engraver. **Cress**, the name of several species of plants, most of them of the nat. order Crucifere. Water-cress, or Nas-turtium officinale, is used as a salad, and is valued in medicine for its antiscorbutic qualities. The leaves have a moderately

#### Cress

# Cresselle

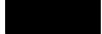
divine worship. **Cresset** (kres'et), a name which appears to have been given in the middle ages and later indifferently to the fixed candlesticks in great halls and churches, to the great lights used as beacous and otherwise, and to lamps or firepans suspended on pivots and carried on Polys in processions municipal and on poles in processions, municipal and military watches, etc. Cressy. See Crécy.





This prove watches, etc. Cressy. See Crécy. Cress (krest; Latin, crists), in ancient a figure originally intended to represent the ornament of the helmet, but is now gen-crally placed upon a wreath, corner, or can be shield. The crest is con-reath, sidered a greater criterion of the is now commonly a piece of the arms, Creston (krestin), a citr, county sea miles E. of Omaha. 75 miles S. w. of Des Moines, on the Chicago, Burlington & Guiney R. R., which has here extensive shops, planing mills and cold storage plant, and has a very large trade in butts. Creston (krestik), THOMAS, an Ene-grage and poultry. It is the center of member of the Royal Academy. His best Weald of Kcnt. Createcous (krestik), THOMAS, an Ene-mendiately below the Tertiary series, and the alter of the Scondary series, may also to a part of Asia. It consists of argillacous deposits, which are also re-strate of the Scondary series, and also to a part of Asia. It consists of argillacous deposits, which are also re-divided into two parts the *Upper*, con-ating entirely of chalk or mart, and ol 2 22 .... ed )g 78 - 1 ءا -

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# Cretonne

edge; sometimes deafness and dumbness, perhaps squinting and blindness. Care-ful treatment under a physician by means of thyroid extract usually restores the victim almost to normal. The treatment must be almost continuous throughout life, associated with good food, cleanli-ness, exercise, etc. **Cretonne** (krc-ton'), a cotton cloth surface, printed on one side with pictorial and other patterns, and used for curtains, covering furniture, etc. **Creuse** (krc-uz), an inland department of France comprising the great-er part of the old province of Marche; area, 2150 square miles. It derives its name from the river Creuse, which rises in it, and traverses it diagonally in a northwest direction, afterwards flowing on to join the Vienne. The surface is generally rugged, and the soil, which is thin and rests upon granitic rocks, is by no means fertile. Pop. (1906) 274,094. **Creuzer** (kroi'tser), GEORG FRIEDERICH archeologist, born in 1771; died in 1858. For nearly forty-five years he filled the chair of philology and ancient history at Heidelberg. He wrote on the mythol-ogy of Greece and other nations, on Greek history and literature, Roman an-tiquities, etc.

tiquities, etc

tiquities, etc. **Creuzot** (krcu-zö), LE, a town of East-Loire, 14 miles from Autun, with ex-tensive ironworks, the most complete in France. The mining of coals, the smelt-ing of iron, and the manufacture of machinery give employment to about 15.000 workmen in the town and vicinity, the greater number being employed at the works of Schneider & Co. Pop. 33,-500. 500.

500. **Crewe** (krö), a municipal town of England, in (heshire, 21 miles s. E. Chester, an important railway center and the seat of enormous manufactories of railway material. It is a modern town, well laid out, and chiefly inhabited by people connected with the railways. It has a commodious market hall, a corn exchange, mechanics' institution, town-hall, etc. Pop. 44,970. **Crewed-Work** (krö'cl), work executed

**Crewel-work** (ktö'el), work executed with the needle, and consisting of designs sewed in colored silk or woolen threads on a basis of un-bleached cotton or linen, toweling, or the like like.

Crewkerne (kr 3'kern), a town of England, in Somerset-shire, 16 miles S. E. of Taunton; manu-factures sailcloth. Pop. 3939.

Crichton

CrichenSribbage(krib'å), a favorite Enginethe whole pack.It may be played bythe or six cards may be dealt topoints make the game; therethe nort icks and no trumps, the objectofing the same.Court cards and no trumps, the objectofing the same.Court and the recever of the different cards a many painofing the same.Court similar cards, as many painof the number of 'pips' upon themof the cards taken two kingsof the number of 'pips' upon themof the reards taken two kingsof the reards taken two kingsof the number of 'pips' upon themof the reards taken two kingsof the reards taken two the taken to orthowof the reards taken two the taken taken the taken taken the taken taken the taken tak

# Cricket

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# Crimea

1

Crimean War

**Crimea** fare of the community, as distinct from civil or private injuries, which are as be-tween person and person, and terminate with the compensation of the injured. Hence from the legal point of view crime is sometimes defined as an offense punishable by law directly, as opposed to an offense which the law punishes in-directly by granting damages to the person wronged. (See Criminal Law.) Whether used in the legal or the moral sense crime implies freedom of will, the power of distinguishing between right and wrong, and a fulfilled intention. Hence, though the theoretic rule of common law is that all infraction of law is criminal and penal, it is held that young children, madmen, and idiots cannot commit crimes. **Crimea** (kri-mě'a), THE (Russ, Krim, anc. Chersončsus Taurica), a peninsula of Southern Russia, govern-ment of Taurida, to the mainland of which it is attached by the Isthmus of Perekop; area, 10,000 sq. miles. On the west and south it is washed by the Black Sea, and on the east by the Sea of Azof, a portion of which, shut off from the rest by a long and narrow strip of land, forms the Sivash or Putrid Sea. Three-fourths 'f the Crimea belongs to the region of steppes, but the other part. confined entirely to the south, and stretching along the coast from west to east, abounds in beautiful mountain scenery. Here the valleys looking southward are luxuriant with vines and olive and mulberry planta-tions, while the northern slope gives a large yield in cereals and fruits. The climate, however, is unequal, and in winter is severe. The chief stream is the Subtice (Dine region in the rest mean in the subtice (Dine region in the set mean in the subtice (Dine region in the set mean in the subtice (Dine region in the set mean in the

session of the country; and with the view of overawing the Turks the great naval arsenal of Sebastopol, occupying the most commanding position in the Black Sea, was begun by Catharine II in 1786. Its military resources were steadily developed up to the time of the Anglo-French cam-paign (see *Crimean war*) of 1854, when it was occupied by the allies. **Crimean War** (kri-mé'an), the strug-france and Turkey on the one hand, and Russia on the other, to prevent the un-due preponderance of Russia in the east of Europe ; 1854 to 1856. The old plans for the extension of Russian power con-ceived by Catharine II and Potemkin were resuscitated by Nicholas I, who, be-lieving that he had secured himself from interference on the part of Austria and Prussia, and that an Anglo-French alli-ance was impossible, prepared to carry them into action. Servia, Bosnia, Bul-garia, and the principalities of the Dan-ube were to become Russian protectorates, and Constantinople was to be provision-ally occupied by Russian troops. The first markedly agrressive strp-the de-mand by Russia for a protectorate over the Greek Church throughout the Turkish empire-brought matters to a crisis. An ultimatum presented by Menschikoff in the Greek Church throughout the Turkish empire—brought matters to a crisis. An ultimatum presented by Menschikoff in May, 1853, was rejected by the Porte; the Russians occupied the Danubian prin-cipalities; and war was declared by the Porte in October, 1853, by France and England in 1854, and by Sardinia in 1855. A French and English fleet entered the Baltic and captured Bomarsund and one of the Aland Islands, and in the south valleys looking southward are luxuriant cipalities; and war was declared by the with vines and olive and mulberry planta-forte in October, 1853, by France and tions, while the northern slope gives a England in 1854, and by Sardinia in large yield in cereals and fruits. The 1855. A French and English fleet entered climate, however, is unequal, and in the Baltic and captured Bomarsund and winter is severe. The chief stream is the one of the Aland Islands, and in the south Salghir. Others of some importance are the allies landed at Varna, under Lord the Tchernaya and the Alma. The most Important of the productions, besides manders-in-chief. While the allies were those already mentioned, are tobacco, of making preparations Prussia and Austria which a large quantity of excellent quality demanded the evacuation of the Danubian is produced, flax and henp. The forests principalities, and on this evacuation be-are of limited extent. There are iarge ing ordered by Nicholas, 'for strategic reasons,' the principalities were provision-cattle and horses are reared in large num-bers. Pop. est. at 450,000. The country the seat of the war, and 50,000 French was anciently associated with the Cim-and English troops with 6000 Turks were merians, and in later times with various Greek sottlements and minor kingdoms. Five days later the battle of Alma was After being for some time a dependency won by the allies (September 20th), and on Rome, it was overrun by successive bodies of barbarians, and in 1237 fell into side of Sebastopol. Soon after St. Ar-the hands of the Mongols under Genghis naud died and was succeeded by Canro-Khan. About 1261 the Genoese were per-mitted to occupy and fortify Kaffa, and menced by a grand attack which proved they rapidly extended their power in a failure, and the Russians under Li-the formation of other settlements. They were expelied, however, in 1475 by at Balaklaya (October 25), but were de-Mahomet II, who made it a dependent shanate. In 1783 the Russians took pos-

# Criminal Law

was made by the Light Brigade. A second attack at Inkerman was again repulsed by the allies, but the siege works made slow progress during the winter, in which the ill-supplied troops suffered great privations. The death of Nicholas and succession of Alexander II. in March, 1855, brought no change of policy. Canrobert resigned in favor of Pélissier; and shortly after an unsuccessful attack on those parts of the fortification known as the Malakhoff and Redan Lord Raglan died, and was succeeded by Simpson. The bombardment was continued, and in September the French successfully stormed the Malakhoff, the simultaneous attack on the Redan by the British proving a failure. The Russians, however, then withdrew from the city to the north forts and the allies took possession. The chief subsequent event was the capture of kars, in Asia, by the Russians, after a splendid defense by the Turks under General Williams. By this time, however, the allies had practical possession of the Crimea, and overtures of peace were gladly accepted. A treaty was accordingly concluded at Paris on April 27. 1856, by which the independence of the Ottoman Empire was guaranteed. See Paris, Treaty of. Criminal Law (krim'i-nal), the law relating to crimes.

Ottoman Empire was guaranteed. See Paris, Treaty of. Criminal Law (krim'i-nal), the law relating to crimes. The general theory of the common law is sthat all wrongs are divisible into two species: first, civil or private wrongs or torts; secondly, criminal or public wrongs. The former are to be redressed by private uits or remedies instituted by the parties injured. The latter are redressed by the State acting in its sovereign capacity. The general description of the private wrongs is that they comprehend those injuries which affect the rights and property of the individual, and terminate there; that of public wrongs or offenses being that they comprehend such acts as injure, not merely individuals, but the community at large, by endangering the pence, the comfort, the good order, the policy, and even the existence of society. In the first, therefore, so far as the law is concerned, the componation of the individual whose rights have been infringed is held to be a sufficient atonement; but in the second class of offenses it is demanded that the offender make satisfaction to the community as acting prejudicially to its welfare. The exact boundaries between these classes are not, however, always, easy to be discerned, even in theory; for there are few private wrongs which do not evert an influence beyond the individual whom they directly injure. Criminal Law

not necessarily mutually exclusive, cases sometimes occurring in which the person injured obtains damages, while at the same time the criminal is subjected to punishment, not as against the indi-vidual, but as against the State. It ia moreover, obvious that legal criminality is not in any strict sense the measure of the morality of actions, though the legal enactment tends to enforce itself as a moral law. In large part it is only an approximate expression of the current sense of justice, this expression being both aided and hindered by the historical and constantly reflexive character of legal method. The basis of the criminal law of Great Britain is to be found in a series of loose definitions and descriptions, of which many, and those among the more important, date from the thirteenth cen-tury. The irregular superstructure reared upon these consists mainly of parliamen-tary enactments which originated in the cighteenth century. The laws as inter-preted, the whole system being further complicated by a mass of judicial com-ments and particular constructions. Thus, while there is a statutory division of not necessarily mutually exclusive, cases preted, the whole system being further complicated by a mass of judicial com-ments and particular constructions. Thus, while there is a statutory division of crimes into treasons, felonies, and misd-meanors, the distinctions between them are so uncertain that it is possible to re-gard the first head as merely the isolation of a subcase of felony; while in respect of the second and third classes, the dis-tinction can only be clearly marked by an enumeration of the crimes arbitrarily as-signed to each in the common law and judges' decisions. Even in severity of pun-ishment a misdemeanor may rank as high as a felony. The aim of criminal law as at present constituted is both retributive and preventive—in its former aspect being based upon the primitive passion of re-taliation, in the latter primarily upon the fundamental instinct of self-preservation. The prevention of crime may, however, be effected in a threefold manner: by imposing a penalty which shall operate by fear to deter men from committing crimes, or by rendering it physically impossible for a man of known criminal tendency to repeat an offense, or by the reformation of the criminal. With the higher evolution of society the principle of retaliation has fallen into theoretical disrepute, though still a practical legal factor; and the problems of penology are made to turn almost exclusively upon the principle of prevention in these three aspects, and especially in the last two. In the several States of the Union the doctrine of the English common law is incorporated in the statute laws, as to

# Crimp

the classification of the crime and its effects, but the punishment is measured by special statutory enactment. In most of the States the power of pardoning a criminal is vested in the governor; in Pennsylvania, by constitutional provision, a Board of Pardons can make recom-mendations to the governor for pardons. This is the custom also in Massachusetta. **Crimp**, supplies ships with seamen just before sailing, the term being applied especially to low characters who decoy sailors by treating them, advancing money to them, and giving them goods on credit, etc., till they have them in their power, frequently getting them shipped off in a drunken state after all their money is spent. They also keep an outlook for emigrants, and take them to low lodging houses in which they themselves are in-terested. **CrimSON** (krim'zn), a rich, deep-red

**Crimson** (krim'zn), a rich, deep-red color, a red that owes its characteristic tint to a certain admixture of blue.

Crinoidea (kri-noi'de-a; Gr. krinon, a lily), the encrinites or sea-lilies, an order of Echinodermata, sea-lilies, an order of Echinodermata, consisting of animals attached during the whole or a portion of their lives to the sea-bottom by means of a calcareous jointed stem, from the top of which radiate feather-like, flexible appendages or arms, in the center of which is the mouth. Though comparatively few in number now, they lived in immense num-bers in former days, many carbonifer-ous limestones being almost entirely made up of their calcareous columns and joints. joints.

made up of their calcareous columns and joints. **Crinoline** (krin'ō-lin, -lin; French, properly a kind of fabric made chiefly of horse-hair, but afterwards generally applied to a kind of petticoat supported by steel hoops, and intended to distend or give a certain set to the skirt of a lady's dress. Hooped skirts (farthin-gales or fardingales), supported by whalebone, were worn in England in the time of Queen Elizabeth and James I, and the fashion was again introduced in the time of George II. The crinoline proper came into common use about 1856, being worn by women generally and sometimes proving by its portentous dimensions a source of much inconven-ience and no little danger. The immense bell-shaped crinolines happily fell into disuse about 1866. Crinoline wire was for years a leading branch in the steel trade. A horse-hair and cotton fabric used as a material for making ladies' bonnets is also called crinoline.

**Crinum** (kri'num), a genus of hand-some plants of the order Amaryllidaces, with strap-shaped leaves and a solid scape bearing an umbel of many rosy, fragrant flowers. There are numerous species found in Asia, Austra-lia, South America and certain parts of Africa, and interesting hybrids have been produced by our gardeners. The Crisawa Asiaticum has a bulb above ground, which is a powerful emetic, and is used by the natives to produce vomiting after poison has been taken. **Crio-sphinx** (Gr. krios, a ram), a sphinx with the head of a ram, as distinguished from the *an-dro-sphing* or human-headed sphinx, and



the hicraco-•phinx with the head of a hawk.

Cripple Creek, a mining town, cap-ital of Teller Co., Colorado. It is the business center of the exceedingly rich Cripple Creek gold mining district, which has yielded as much as \$30,000,000 in a year. Pop. (206.

much as \$30,000,000 in a year. Pop. GCOS. Crisis (krl'sis; from the Greek kriac-in, to decide), in medicine, the turning-point in a disease at which a decided change for the better or the worse takes place. In regular fevers the crisis takes place. In regular days, which are called critical days (the 'th, 14th, and 21st); sometimes, however, a little somer or later, according to the climate and the constitution of the patient. The word crisis is also figuratively used for a decisive point in any important affair or business, for instance, in poli-tics and commerce. Commercial crise-have been in an especial degree the sub-jects of study at the hands of economists, with the result of establishing a curious periodicity in their recurrence. The com-mercial cycle apparently completes itself in about ten years, the earlier portion of the period being attended with im-proving trade, and a considerable infla-tion of credit and followed by failures and distrust. Crisp, man, was born in Sheffield.

and distrust. Crisp, CHARLES FREDERICK, states-England, of American parents, in 1845. After service in the Confederate army he studied law; was solicitor-general and

#### Crispi

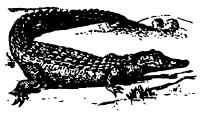
Congress from Georgia in 1882, and was Speaker of the House 1891-95. He died in 1896.
Crispi ian statesman, born at Ribera, Sicily, in 1819; died in 1901. He joined the 1848 revolutionists at Palermo, and had to flee to France. In 1859 he organized the successful movement under which Garibaldi conquered Sicily. In the new Italian kingdom he was successively deputy minister and prime minister in 1887-90 and in 1804-96; resigning in 1896 in consequence of the Italian disasters in Abyssinia.
Criticism (krit'i-sizm). THE HIGHER. The determination of the literary value of books and writings, as opposed to the lower or textual criticism, in which is considered the history of writings as the work of penman or printer. In the higher criticism internal instead of external evidence is employed, the object being to trace literary form, construction and method, unity, date, probable authorship, and indications of later editing. It has been recently applied to the study of the Old Testament, especially by German writers, with important results, though different opinions have been reached by the two classes of critics, those who deny and those who maintain the existence of a supernatural element in the Scriptures.
Crittenden (krit'enden), Jours Joenard and was elected to the United States Senate in 1817 and again in 1833. "resident Harrison appointed him attorney-general in 1841, he was reflected to the Senate in 1843, was attorney-general in 1843, was attorney-general in 1844, herone, the State of the Missouri Compromise, and in 1863.
Groatia (kro-fi'shi-a), a province of of Jugo-Slavia, othiculty reconized by the

judge in Georgia. He was elected to (ongress from Georgia in 1882, and was feet. In the north, the vine is grown, the Speaker of the House 1891-95. He died in 1896. Crispi (kris'pi), FEANCESCO, an Ital-but the whole country is more pastoral ian statesman, born at Ribera, Sicily, in 1819; died in 1901. He joined and Serbs, with a mixture of Germans, the 1848 revolutionists at Palermo, and Hungarians, Jews and Gypsies. About had to flee to France. In 1859 he or-ganized the successful movement under which Garibaldi conquered Sicily. In the new Italian kingdom he was suc-cessively deputy minister and prime the new Italian kingdom he was suc-cessively deputy minister and prime that new Italian kingdom he was suc-cessively deputy minister and prime that new Italian kingdom the was suc-cessively deputy minister and prime traticing in 1887-90 and in 1894-90; re-italian disasters in Abyssinia. Criticism (krit'i-sizm), THE HIGHER, in which is considered the history of writings as the work of penman or printer. In the higher criticism inter-nal instead of external evidence is em-ployed, the object being to trace liter-al instead of external evidence is em-ployed, the object being to trace liter-al instead of external evidence is em-ployed, the object being to trace liter-al instead of external evidence is em-ployed, the object being to trace liter-al instead of external evidence is em-ployed, the object being to trace liter-al instead of external evidence is em-ployed, the object being to trace liter-al instead of external evidence is em-ployed, the object being to trace liter-al instead of external evidence is com-indications of later editing. It has been indications of later editing. It has been indications of later editing. It has been indications of a ter editing. It has been indications of a ter editing. It has been indications of bater editing. It has been indications of bater editing. It has been indications of bater editing. It has been indications have been reached by the

morations of meter culture. It nas been canopies, gables, etc. The name is also recently applied to the study of the Old given to one of the terminal snage on a supernatural results, though different opinions have been reached by the voc classes of critics, those who deny and those who maintain the existence of a supernatural element in the Scriptures.
 **Crockett**, Davin, an American from tiersman, born in Limetro and those who maintain the existence of a supernatural element in the Scriptures.
 **Crittenden** (krittenden), JOHN JOEN is time and energy rather to backwood pursuits, in which he excelled. In 1813- part, statesman, born in the Creek campaign. In 1828 he became a member of Congress, succeeding largely andvocate, and was elected to the United in whining his seat, it is said, by his ablicters, and section 1833. Was attorney general in 1841, he was reëlected to the United in the Fillmore cabinet, and senator again 1855-61. The opposed the repeal of the Missouri Compromise, and repeal of the Missouri Compromise, and of the Senate in 1843, was attorney the senator again 1855-61. The opposed the repeal of the Missouri Compromise, and in 1861, through his influence, the State of Kentucky remained in the Union. He fillmore cabinet, and senator again 1855. The sorther of the crownlands of Hungary, and, with NAVAA, formed a kingdom within the Anstria and Germany and from Servia and Boenia by the Savata for the sonthwest are Dalmatin and the Alfristic ; and on the west, lstria, Carnida and Styria, Croatia with Slavan different and the Boante, and Styria, Croatia with Slavan and the Stote in and order of saurias has an area of 16, 125 miles. The surface is irregular, the Alps extending into it, surface is irregular. The Alps extending into it, surface is irregular, the Alps extend

# Crocoisite

order Crocodilia are as follows :--The skin is covered with square bony place; the tail is long and compressed laterally. The four feet are short, and there are five toos on each of the two forefeet, and four on each of the hind feet; the limbs are feeble. The jaws are long and



Crocodile (Crocodilus Niloticus or sulgaris).

Crocodile (Crocodilus Niloticus or sulgeris). their gape of enormous width. The nos-rand capable of being closed to prevent ingress of water. The heart is four-chambered. The most ancient forms of the group were the Tclcosaurus, from the Lias and Oblite, and the Strepto-spondylus, from the Lias. Oblitic and Wealden strata. The families now exist-ing are the Alligatoride, Crocodilide and Garialide. The alligators are all New World forms. (See Alligator.) The gavial proper (Garialis Gangeticus) is confined to the East Indies. (See Garial.) The Crocodilide, to which family the crocodile belongs, have un-equal teeth and no abdominal plates, and the corvical and dorsal plates are distinct for the most part. The crocod-ile of the Nile (Crocodilus rulgdris) is other species (C. palustris) is met with in South Asia, Sunda and the Moluccas. The rocodile is formidable from its great size and strength, but on shore its shortness of limb, great length of body, and difficulty of turning enable men and animals readily to escape pursuit. In the water it is active and formidable. It is exclusively carnivorous, and always prefers its food in a state of putrefac-tion. In Egypt it is no longer found except in the upper or more southern parts, where the heat is greatest and the population least numerous. Croco-diles are still common enough in the river Senegal, the Congo, Niger, etc. They grow sometimes to a length of 30 for the apparently live to a vast age. **Crocoisite** (kro'koizit), a mineral, a mate, or red-lead ore. In it chromium was first discovered.

**Crocus** (krö'kus), a genus of plants of the order Iridacess or Iris, forming one of the most common orna-ments of our gardens. Most of the spe-cies are natives of the south of Europe and the Levant; and three grow wild in Britain. They may be divided, ac-cording to their period of flowering, into rernal and autumnal. Among the ver-nal crocuses may be mentioned the white and purple C. vernus; C. versicolor, dis-tinguished by the yellow tube of its flower bearded with hairs, and its sweet scent; C. bifforus, the Scotch crocus, with beautiful penciled sepals, and clear or bluish-white petals. Among the autumnal species are C. sudifforus and C. satirus, whose long, reddish-orange, drooping stigmas when dried form saf-fron. See Saffron. **Creesus** (krö'sus), the last king of Lydia, son of Alysttes, whom he succeeded in 500 B.C., and extended the empire from the northern and western coasts of Asia Minor to the Halys on

Lydia, son of Alyattes, whom he succeeded in 560 B.C., and extended the empire from the northern and western coasts of Asia Minor to the Halys on the east and Mount Taurus on the south, including the Greek colonies of the main-land. His riches, obtained chiefly from mines and the gold-dust of the river Pac-tolus, were greater than those of any king before him, so that his wealth be-came proverbial. Having entered upon war with Cyrus, he was taken prisoner in his capital, Sardis (B.C. 540). The date of his death is unknown, but he survived his captor, and is referred to in the reign of (ambyss. **Croft**, WILLIAM, an English musical *Croft*, Composer, born in 1077. He was organist in the chapel royal, and published Musica Nacra, or Select As-thems, etc. Died in 1727. **Crofter** (krofter), a petty farmer renting a few acres of land, with sometimes the right of grazing his cattle in common on a piece of rough pasture. Crofters are numerous in the Highlands and in the Western Islands of Scotland, as well as in some other lo-calities. From many districts they have been removed owing to their holdings being absorbed in sheep farms or deer foreasts, and they are now mainly con-gregated on the seashore, where they

being absorbed in sheep farms or deer forests, and they are now mainly con-gregated on the seashore, where they partly maintain themselves by fishing. **Croker** (krö'ker), JOHN WHRON, an English writer and politician, born at Galway, in 1780. He was edu-cated in Cork, and at Trinity College, Dublin, and called to the Irish bar in 1802. In 1803 he published anony-mously: Familiar Epistles on the Irish Stage, and in 1805, an Intercepted Letter from China, both clever satires. In 1808 he entered Parliament as member

Croker

for Downpatrick. He was appointed in area is about 220,800 acres. 1800 to the post of secretary to the ad-miralty, which he retained till the reign of William IV. The Reform Bill was trenuously opposed by him, and on the passing of that measure in 1832 he with-drew from public life. He was one of the founders of the Querterly Review. and one of its ablest contributors, though his articles display frequent malevolence. His other writings include an edition of Roswell's Life of Johnson: Ulm and trafalgar and Talavera. two poems: Norices from the History of England. from which Sir Walter Scott derived his idea of Tales of a Grandfather; and edi-tions of the Suffolk Papers, Lady Her-trey's Letters. Lord Herrey's Memoirs and Walpole's Letters. Led Herrey's Memoirs and Walpole's Letters. Led Herrey's Memoirs in 1798. While in a merchant's office in Soffs and was appointed Briti-leeasantry of the south of Ireland. In 1819 an appointment in the admiralty was obtained for him, and he retired with a pension in 1821; died in 1837. Croll, JAMES, an English physicist, Nord k scoth geological survey 1807-81. He Scotch geological survey 1807-81. He worte Cimate and Time. Stellar Frou-tion, etc. Croly (krö'li), GEOBCE, author and Croner (krö'mer), a sma merged, the sea constantly misching phecies. Due Croner (krö'mer), a sma was created first Baron Crom-viscount in 1897, and earl in reorganized every department of tian administration and was the builder of modern Egypt is his Fairy Legends and Tradi-tion, etc. Crolly (krö'li), GEOBCE, author and Kroike, The odd in Trained tion, etc. Crolly preacher, born at Dublin in Croner (krö'mer), a sma was created first Baron Crom-sized wery department of tian administration and was the builder of modern Egypt is administration and misching phec-tion, etc. Croner (krö'mer), a sma merged, the sea constantly misching phec-ter and bathing phec-ter and bathing phec-ter and trime (const and trime) (const kergen (kroi mer), a

**Crony** (krö'li), GEOEGE, author and **Croly** (krö'li), GEOEGE, author and **T**80; studied at Trinity College, Dub-lin; was appointed to a small curacy in Ireland, but resigned it and became a prominent figure in London journalism and letters. His separate literary works comprise: Paris in 1815, a poem; the Angel of the World, a tale: Catiline, a tragedy: Pride shall have a Fall, a com-edy. 1824; Salathiel, a romance; etc. He is also the author of several biograph-ical and other works; and numerous sermonas. In 1835 he was made rector of St. Stephen's, Wallbrook, As a preacher he was deservedly popular. He died in 1860.

died in 1860. **Cromarty** (krom'arti), a seaport tremity of Scotland, at the er-the Moray from the Cromarty Firth, 16 miles N. E. of Inverness. It was the birthplace of Hugh Miller. Pop. 1242. -The county of Cromarty consists of a large number of detached portions scat-tered over the county of Ross with which they are practically merged. The total

See Rou

and Oromarty. **Crome** (kröm), JOHN, an English art-ist, son of a Norwich weaver; born in 1769. During the greater part of his life he was a teacher of drawing. In 1805 he founded the Norwich Society of Artists, of which he became president as well as chief contributor to its annual exhibitions. He excelled in depicting the scenery of his native county, and espe-cially in his handling of trees; and his high place among British landscape paint-ers is now universally acknowledged. He died in 1821.

high place among British landscape paint-ers is now universally acknowledged. He died in 1821. **Cromer**, Everyn BARING, first Earl **Cromer**, (1841-1917), British states-man and administrator, was born at Cromer Hall, Norfolk, and educated at Woolwich Academy. He joined the Royal Artillery in 1858, and in 1872 acted as private secretary to Lord Northbrook, Viceroy of India. He became major in 1876 and was appointed British commis-sioner of the Egyptian public debt office. He was finance minister of India from 1880 to 1883, when he became British agent and consulgeneral in Egypt. He was created first Baron Cromer in 1892, viscount in 1897, and earl in 1901. He reorganized every department of the Egyp-tian administration and was known as 'the builder of modern Egypt.'

Cromer (krö'mer), a small seaport and bathing place of Eng-land, County Norfolk, 21 miles x. of Norwich. The old town is now sub-merged, the sea constantly making fresh encroachments. Pop. (parish) 4074. Cromlech (krom'lek), an ancient mon-ument consisting of two or more columns of unbewn stone supportmore columns of unhewn stone support-ing a large tabular block so as to form a rectangular chamber, beneath the floor of which is sometimes found a cist en-



Cromlech at Lanyon, Cornwall.

Cromlech at Lanyon Corawall. closing a skeleton and relics. Sometimes the cromlech was encircled by ring of standing-stones, as in the case of the Standing-stones of Stennis, in Orkney: and sometimes it was itself buried by neath a large mound of earth. See Dolmen.

#### Cromwell

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#### Cromwell

# Cromwell

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# Cromwell

croinwell nine. He wrote the Memoirs of the Protector and Ms Sons, illustrated by Family Papers, 1820. Cromwell, Thomas, Earl of Essex, Tromwell, son of a blacksmith at Putney, in Surrey; born about the year 1490. In his youth he was employed as clerk to the English factory at Antwerp; in 1510 went to Rome; and on his re-turn to England became confidential serv-ant of Cardinal Wolsey, about 1525. On his master's disgrace in 1529 Crom-well defended him with great spirit in the House of Commons, of which he was then a member; and effectually opposed the articles of treason brought against Wolsey. After the cardinal's death he was taken into the king's service, and in 1534 became principal secretary of state and master of the rolls. In 1535 he was appointed visitor-general of all the monasteries in England in order to suppress them, his services being re-warded by the post of lord-keeper of the privy seal, and the title of Baron Crom-well of Okcham. On the abolition of the pope's supremacy he was created king's vicar-general, and used all his influence to promote the Reformation. He was made chief-justice itinerant of the forests beyond Trent, Knight of the Garter, and finally, in 1539. lord high chamberlain, and the following year Earl of Essex. He at length fell into dis-grace with the king for the part he took in promoting his marriage with Anne of Cleves; and others of his political schemes in promoting his marriage with Anne of Cleves; and others of his political schemes failing, he was arrested on a charge of treason, and beheaded on Tower Hill, July 28, 1540.

Cronstadt (kron'stat), a town of Roumania, in Transylva-nia, at the base of the Transylvanian Alps, 60 miles s. E. of Hermannstadt. It is a place of commercial and industrial importance, ranking first in Transylvania; and has a number of manufactures. Pop. (1919, est.), 41 (55) (1919 est.) 41,056.

Croquet Cronus (kro'nus), in ancient Greek mythology, a son of Uranus and Ge (Heaven and Earth), and young-est of the Titans. He received the gov-ernment of the world after Uranus was deprived of it, and was in turn deposed by Zeus. Cronus was considered by the Romans as identical with their Saturnus. Crock (kruk), GEORGE, soldier, born near Dayton, Ohio, in 1823 died in 1890. He was graduated at West Point in 1852, was promoted captain in 1801, and became a brigadier-general of volunteers about September, 1862. He commanded an army corps under Sheri-dan in the Shenandoah campaign of 1804 and was breveted brigadier-general in the regular army. After the ('vil war he served with great distinction in the Indian wars, and was one of the chief agents in subduing the bloodthirsty Apaches. He was breveted major-general in 1805 and made chief cavalry commander in the army, and was raised to the full rank of major-general in 1888. Crockes (krooks). She William, an with the Royal College of Chemistry. Hords the Royal College of Chemistry. He discovered the metal thallium, in-serthed the radiometer, and by his re-seraches with the Crookes vacuum tub openet the way to great advances in science. He published works on chem-science is and metallurgy, and was editor of the Quarterly Journal of Neicence, He became a leading advocate of Spir-ture Live Stock Shows, and has ma-chine shops, flour milk, etc. Pop. (#Col. Croquet (kro-kf'), an open-air game region. It is the home of the famous, whiter Live Stock Shows, and has ma-region. It is the home of the famous, whiter Live Stock Shows, and has ma-region. It is the home of the famous, whiter Live Stock Shows, and has ma-fine shops, flour milk, etc. Pop. (#Col. Croquet (heart 20) yards long by 20 wide. The iron hoops (shaped like the in-writed letter U) and fixed with their two whas a tigzag manner over the ground iter usually ten in number. The

and has a number of manufacture of the fortress of the four of the Strong and forming both by its posi-tion and the strength of its fortlice-tions, the bulwark of the capital, and being also the most important naval sta-tion of the compared in the capital, and be be the commercial port of Petrograd, in the capital at this position. Pop. 59,539.

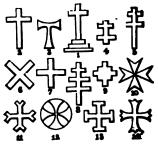
#### Croquet

#### Crosby

and to prevent the balls of their oppo-nents from completing the journey before their own by playing them against those of the enemy, and driving them as far as possible from the hoop or post to be played for, the player or players whose balls first complete the course claiming the wieter.

of the enemy, and driving them as far as possible from the hoop or post to be played for, the player or players whose balls first complete the course claiming the victory. Grosby American hymn-writer, born in Putnam County, New York, March 24, 1820; died February 12, 1915. She received instruction at the New York In-stitution for the Blind and was an in-structor there from 1847 until her mar-riage with Alexander Van Alstyne in 1858. She published a number of popular poems, songs and hymn. **Crosier** (krö'zher), the staff borne by in the Roman Catholic and other church-es, and probably the oldest of the in-signia of the episcopal dignity. The original form of the staff resembled a shepherd's crook, but from the middle of the fourteenth century the archbishops be-gan to carry, sometimes in addition to the pastoral crook, sometimes instead of it, a crosier terminating in a cross or double cross. The crosier is carried by bishops and archbishops themselves only in procession and when pronouncing berediction; on all other occasions it is carried before them by a priest. At Rome the right of bearing the crosser is a trend before them by a priest, or a symbol of similar shape. Among the an instrument of infamous punish-ment until it acquired honor from the erucition of Christ. The custom of making the sign of the cross in memory of Christ may be traced to the third cen-tury. Constantine had crosses erected in public places, palaces, and churches, and adopted it, according to a legend, as the device for a banner (*labarum*) in consequence of a dream representing it as the symbol of victory. In his time also Christians painted it at the en-trance of their houses as a sign of their abso Christians painted it at the en-trance of their houses as a sign of their abso Christians painted it at the en-trance of their houses as a sign of their abso Christians painted it at the en-trance of their houses as a sign of their abso Christians painted it at the en-trance of their houses as a sign of their abso Christians p

be held to connect itself with the fact that it was used emblematically long be-fore the Christian era, in the same way that traces of belief in a trinity, in war in heaven, in a paradise, a flood, Babel, an immaculate conception, and remission by the shedding of blood a re-to be found diffused among widely sup dered peoples. The general meaning at tached to the sign appears to have been that of life and regeneration. Since it is adoption by Christianity it has under r



FORMS OF CRO

FORMS OF CROSSES. 1, Cross of Calvery, a cross on three steps Latin Cross, a cross the transverse beam of v is placed at one-third of the distance from top of the perpendicular portion, suppose be the form of cross on which Christ suf 3, Tau Cross (so called from being formed the Greek letter t, tau), or cross of St. And one of the most ancient forms of the cross (ross of Lorrains. 5, Patriarchal Cross, of Andrew's Cross, the form of cross on which Andrew's the national saint of Scotland, is and the appears on British flags. 8, Cross which appears on British flags. 8, Cross, formed of four arrow-heads meetin the points; the badge of the Knights of A 11, Cross fourchte or forked. 12, Cross patri formte. 13, Cross potent or Jerussies 14, Cross flaury, modifications of Andrews the

gone many modifications of shape, and has been employed in a variety of ways for ornaments, badges, heraldic bearing a etc. After the introduction of the cross into the military ensigns of the Cross at ers its use in heraldry became frequent, and its form was varied more than of any other heraldic ordinary, some of the varieties being of great beauty. The name cross is also given to various arbi-tectural structures, of which a cross in stone was a prominent feature; thus have market crosses, etc. The principal forms of the cross as a device or symbol are shown in the accompanying cut.

**Cross,** EXALTATION OF THE, a Catho-lic festival celebrated on the 14th of September in honor of the re-covery of a portion of the true cross from the Persians by Heraclius (628 A.D) and its erection on Mount Cal-vary. VALY.

**Cross,** INVENTION OF THE (the finding **Gross,** of the cross), a phrase chiefly used in connection with the Catholic festival in honor of the finding of the cross by the Empress Helena (326 A.D.), celebrated on the 3d of May.

Cross, VICTORIA. See Victoria Cross.

Cross, VICTORIA. See Victoria Cross. Crossbar Shot, shots with iron bars them, sometimes standing out 6 or 8 inches at both sides, formerly used for destroying rigging, palisading, etc. Crossbearer (porfeccroix, cruciger), lie (hurch, the chaplain of an archbishop or a primate, who bears a cross before him on solemn occasions. Cross'bill (Loxia), a genus of birds of the finch family, de-riving their name from a peculiarity of their bill, the mandibles of which are curved at the tips, so as to cross each other, sometimes on the one side and sometimes on the other. The form of the bill enables them to extract with ease the seeds of the pine, their usual food, from underneath the scales of the cones. They build and also breed at all seasons of the year, in December, as in March, April, or May. The common crossbill (Loria curvirostra) is found in the morthern countries of Europe. It is from 6 to 6<sup>1/2</sup>, inches in length. The male has a red plumage, the female is of a yellowish-green color. The Loxia pity-opititheus, or parrot crossbill, is an-other European species, Two species of crossbill inhabit Canada and the north-ern States, Loxia Americana, and Cur-rirostra leucoptera, or white-winged crossbill. Crossbow, or ARBALIST, formerly, a

crossbill. Crossbow, or ABBALIST, formerly a shooting, consisting of a bow fastened nthwart a stock. The bow, which was often of steel, was usually bent by a lever windlass, or other mechanical con-trivance, the missile usually consisting of a square-headed bolt or quarrel, but occasionally of short arrows, stones, and leaden bullets. Though largely used on the European continent, the crossbow was superseded at an early period in England by the more efficient longbow, from which twelve arrows could be de-spatched per minute to three bolts of the crossbow. crossbow.

19-3

Cross-breeding, the breeding to-gether of animals of different races or stocks. See Breeding.

Cross-days, the three days preced-ing the feast of the Ascension.

cension. **Crosse,** ANDREW, an English physician died in 1855. He passed the greater part of his life experimenting in elec-tricity. In 1816 he asserted that by electricity it was possible to communi-cate one's thoughts instantaneously to persons in the most distant parts of the earth, but he never appears to have at-tempted to demonstrate the fact by ac-tual experiment. Among other things he applied electricity in the production of crystals, discovered a process of puri-fying salt water by electricity, and also made some curious discoveries relative to the effects of positive and negative electricity on vegetation. **Cross-examination**, the examina-

**Cross-examination**, the examina-ness called by one party by the opposite party or his counsel.

**Cross-fertilization**, in botany, the fertilization of the ovule of one flower by the pollen of another, usually effected by the agency of insects, the action of the wind, water, etc. See Botany.

Crossopterygidæ (-rij'i-de), a sub-order of ganoid fossil and recent fishes, so called from fossil and recent fishes, so called from the fin-rays of the paired fins being ar-ranged so as to form a fringe (Gr. kros-soi) round a central lobe. The living *Polypterus* and *Ceratodus* belong to this groups group.

**Cross-staff**, an instrument used by staff carrying a brass circle divided into four equal parts by two lines inter-secting each other at right angles. At the extremity of each line perpendicular sights are fixed, the instrument being used in taking offsets.

in taking offsets. **Cross-stone**, a name given to the minerals harmotome, a hydrated silicate of barium and alumin-ium, and staurolite, a silicate of iron and aluminium, in both of which the crystals cross each other. Harmotome, however, has by some mineralogists been called staurolite. The name cross-stone is sometimes also given to chias-tolite, because of the occasional dark markings on the summits of the crys-tals. tals.

**Crosstrees**, in ships, certain pieces of timber at the upper ends of the lower and top masts, atbwart

Crosstrees

#### Crotalaria

which they are laid, to sustain the frame of the tops in the one, and extend the topgallant shrouds on the other.

Crotalaria (krō-ta-lür'-i-a), a ge-nus of leguminous plants, all natives of warm cli-mates, but some of them long cultivated in hot-houses. C. juncës is the sunn-hemp plant. Crotalidæ (k r ö-tal'i-dē), a fam-ily of serpents including some of the most danger-ous, above all the rattle-snakes.

snakes. Crotch (kroch), W I I.-A. Crosstrees. Norwich, England, in 1775. As a child he showed astonishing precocity, and at the age of twenty-two was appointed pro-fessor of music at Oxford University, with the degree of Doctor of Music. In 1822 he became principal of the Royal Acad-emy of Music. Ile died in 1847. He left a large number of compositions, more es-pecially for the organ. piano, and voice, and three technical treatises. Crochet. See Music

Crochet. See Music.

**Croton** (krö'ton), a genus of herba-ceous plants, shrubs and trees, order Euphorbiaceæ, comprehending a great number of species, many of which possess important medical properties. The more remarkable species are C. Cas-carilla, a native of the West Indies and



Croton Tigliam.

Indies, from the seeds of which croton oil is extracted (see *Croton oil*); and ('. *Draco*, a Mexican plant, which yields a red, resinous substance used in making varnish. *C. Pscudo-china*, the copalche plant, yields the bark of that name, but ('. balsamifčrum, *C. aromaticum*, and *C. thurijčrum* are merely aromatic. **Croton**, CBOTO'NA (the modern Co-TRONE), in ancient geogra-phy, a Greek republic in Magna Græcia of South Italy, famous for its athleta. among whom the chief was Milo. It is still more celebrated as the city where l'ythagoras taught between 540 and 55y B.C.

B.C.

l'ythagoras taught between 540 and 559 B.C. Croton Oil, a vegetable oil expressed Croton Tiglium. It is so strongly pur-gative that one drop is a full dose, and half a drop will sometimes produce a powerful effect, and it should never be used except by the direction of an expe-rienced physician. When applied ex-ternally it causes irritations and suppura-tion, and thus it is used as a counter-irritant in neuralgia, etc. Croton River, a small stream which son, 30 miles above New York. For a long time it was the chief water supply of New York, now superseded by the great Ashokan Reservoir (0, v.). The first Croton Aqueduct, 38 miles long, was con-structed 1837-42; larger dams were built and a new reservoir opened in 1880. Nearly 30 miles of the aqueduct formed a continuous rock tunnel lined with brick and stone masonry, with a supply ca-pacity of 400,000,000 gallons daily. Crottles (krot'els), a popular name collected for dyeing purposes, and dis-tinguished as black, brown, white, etc., crottles, Under it are included Parme-lia physödcs, P. caperata, P. saratilis, Nicta pulmonaria, and Levanora paller-crons. Croup (krüp). Two diseases are com-

Croup (kröp). Two diseases are com-monly confounded under the term 'croup,' one a simple and, if promptly treated, a readily subdued dis-case, the other most fatal. The former is simple inflammation of the inner lin-ing membrane of the larynx—the box of the windpipe—or of the windpipe itself, or of both. It is common in children, and as the air-passage of children is narrow, the swelling produced by the in-flammation so diminishes the space that difficult breathing, hoarseness of voice. Florida, which yields the cascarilla bark, difficult breathing, hoarseneas of voice, a valuable aromatic tonic; C, laccifirum, and a cough like a muffled bark are a native of the East Indies, said to fur-quickly produced, while the breathing nish the finest of all the sorts of lac; sounds loud and harsh. The other disc. Tiglium, an inhabitant of the East case is diphtheria of the larynx or wind-



#### Crousaz

pipe, or both, in which a false membrane is formed which lines the air-passages, and so narrows them. Croup frequently proves fatal by suffocation, induced either by spasm affecting the glottis or by a quantity of matter blocking up the air-passages. The earliest symptoms should be noted, and the treatment in the absence of immediate medical advice should consist in the application of hot poultices to the upper part of the chest, while at the same time the child is made to inhale the steam from hot water. Hot drinks are beneficial, and the bowels should be freely opened.

billed is basis to the upper late of the covar, a purple of the solution are bounded as the steam from hot water is purple of the straits of the straits of the straits of the family Covide. If the steam from hot water is purple of the family Covide. If the state of the straits of the straits

than in the rook; the rest of the body is a dull smokegray. Its food is similar to that of the carrion-crow, and it builds a similar nest.

similar nest. Crowberry, or CRAKEBERRY (Em-resembling the heaths, and bearing a jet-black berry, common in all the northern parts of Europe, Asia, and North Amer-ica. The berries, which have a slight acid taste and are sometimes eaton, afford a purple dye. The red crowberry (E. *rubrum*), which has a red fruit, grows in the neighborhood of the Straits of Ma-gellan.

#### Crown

#### Crown

athletic contests, as rewards for military valor, and at feasts, funerals, etc. It is, however, with the eastern diadem rather than with the classic corona that the crown as a symbol of royalty is con-nected; indeed, it was only introduced as such a symbol by Alexander the Great, who followed the Persian usage. An-tony wore a crown in Egypt, and the Roman emperors also wore crowns of various forms, from the plain golden fillet to the radiated or rayed crown. In mod-ern states they were also of various forms until heralds devised a regular series to until heralds devised a regular series to



British Crown

British Crown mark the grades of rank from the im-perial crown to the baron's coronet. The English crown has been gradually built up from the plain circlet with four tre-foil heads worn by William the Con-queror. This form was elaborated and jeweled, and finally arched in with jeweled bands surmounted by the cross and scepter. As at present existing the crown of England is a gold circle, adorned with pearls and precious stones, having alternately four Maltese crosses and four fleur-de-lis. From the top of the crosses rise imperial arches, closing under a mound and cross. The whole covers a crimson velvet cap with an er-mine border. The crown of Charlemagne, which is preserved in the imperial treasovers a crimson velvet cap with an er-but accomplished nothing. It was finany mine border. The crown of Charlemagne, abandoned by the French in July, 1759, which is preserved in the imperial treas-after General Jeffery Amherst (q. v.) had ury of Vienna, is composed of eight captured Ticoderoga. Amherst then plates of gold, four large and four small, built a fort of solid masonry, twenty-five connected by hinges. The large plates feet thick, at Crown Point, at a cost of are studded with precious stones, the \$10,000,000, it is said. front one being surmounted with a cross: the smaller ones, placed alternately with these, are ornamented with enamels rep-its plane. It is used in certain cases in-resenting Solonon. David, Hezekiah and stat of bevel wheels for connecting two Isainh, and Christ seated between two faming scraphim. The Austrian crown faming state of gold supporting 10 miles from London. Pop. 169,551.

a mound and cross; the tiara rests on a circle with pendants like those of a miter. The triple crown of the popes is more commonly called the tiara.

commonly called the tiara. Crown Gall, a destructive disease trees as well as red raspberries, grapes, roses and many other plants. The crown galls occur at the crown or on the roots and sometimes on the stems. They are more or less spherical, with irregular. roughened surface. The organism which causes the disease lives in the soil for sev-oral years and is very difficult to eradi-cate: a long rotation of crops is often necessary. necessary.

necessary. Crown-glass, the hardest and most dow-glass, made almost entirely of sand and alkali and a little lime, and used in connection with fint-glass for optical in-struments in order to destroy the dis-agreeable effect of the aberration of cŏlors.

Crown Imperial. See Fritillary.

Crown Lands, the lands belonging to the British crown. These are now surrendered to the coun-try at the beginning of every sovereign's reign in return for an allowance (the Civil List) fixed at a certain amount for the reign by Parliament. They are placed under commissioners, and the revenue derived from them becomes part of the consolidated fund. See Civil List. **Crown Point**, a place of great im-portance in the early

Crown Point, a place of great im-portance in the early history of America, at the southern end of Lake Champlain, New York. The French took possession of it in 1731 and built Fort St. Frederic. In June, 1755. Sir William Johnson (g. v.) endeavored to take Crown Point, but was held up by Dieskau (g. v.) at Lake George, where Johnson built Fort William Henry (g. v.). while the French built a fort at Ticonder-oga called Carillon. General Lord Lou-don. in 1756, concentrated his efforts against Ticonderoga and Crown Point, but accomplished nothing. It was finally abandoned by the French in July, 1759, after General Jeffery Amherst (g. v.) had captured Ticonderoga. Amherst then built a fort of solid masonry, twenty-five feet thick, at Crown Point, at a cost of \$10,000,000, it is said. Crown Wheel. a wheel with teeth

# Crozier

Crozier. See Croster.

Crozier. See Orosior. Crucian Carp (krösh'yan karp), a deep-yellow color, the Cyprinus carassius. differing from the common carp in having no barbules at its mouth, inhabiting lakes, ponds and sluggish rivers in the north of Europe and Asia. Crucible (krö'si-bi), a vessel employed to hold substances which are without collecting the volatile products of the action. It is usually of a conical, cir-cular, or triangular shape, clowed at the bottom and open to the top, and is made of various materials, such as fire-clay and plumbago, porcelain, etc. Cruciferæ (krö'sif'erë), a very ex-tensive nat. order of dicot-yledonous plants, consisting of herbs which all have flowers with six sta-mens. The fruit is a pod with a mem-branous placenta dividing it into two colls. The mustard, watercress, turnip, cabbage, scury-grass, radish, horse-rac-ish, etc., belong to this family. They have nearly all a volatile acridity dis-persed through every part, from which they have their secular dor and sharp taste and their stimulant and antiscor-built dower, stock, candytuft, etc. Crucifix (krö'si-fiks), a cross bearing rate the figure of Christ. As a rule, the figures of the sons tancient cru-cifixes were not carved, but were en-graved on sold, silver, or iron crosses. At a later period they were painted on wood, and it is only in the ninth century, in the pontificate of Leo III, that the figure of Christ appears carved upon the cross in how-relief. Originally the hody

in the pontificate of Leo III, that the figure of Christ appears carved upon the cross in bas-relief. Originally the body was represented clothed in a tunic reach-ing to the feet; afterwards the clothing was removed with the exception of a cloth round the loins. Until the eleventh century Christ is represented alive; since that period he has been represented as dead. In the earlier crucifixes, also, the number of nails by which Christ is fixed to the cross is four, one through each hand and each foot, while in the more modern ones one foot is laid above the other and a single nail driven through both. Many crucifixes bear also the superscription in an abbreviated form, and accessory symbols and figures. was represented clothed in a tunic reach-

Cruitsnank Crucifizion ('trö-si-fik'shun), a mode of inflicting capital pun-ishment, by affixing criminals to a wooden cross, formerly widely practised, but now chiefly confined to the Moham-medans. Different kinds of crosses were employed, especially that consisting of two beams at right angles and the St. Andrew's cross. **Cruden** (krö'den), ALEXANDER, com-piler of the Concordance to the Scriptures, was born at Aberdeen in 1701. He took the degree of M.A. at Marischal College, and in 17:22 pro-ceeded to London, where he was em-ployed as tutor. He afterwards opened a bookseller's shop under the Royal Ex-change, and in 1735 was appointed book-seller to Queen Caroline. His great work appeared in 1737, under the title of A Complete Concordance of the Holy Scrip-twres of the Old and New Testaments. In a pecuniary point of view it was not at first successful, and the embarrass-ments to which it reduced him unsettled his reason and led to his confinement at Bethnal Green. He was again tempora-rily confined in 1753. He died in Isiling-ton in 1770. Three editions of the Con-cordance appeared in his lifetime, and he was also the author of A Scripture Dictionary, or Guide to the Holy Scrip-tures and The History and Excellency of the Scriptures. **Cruelty to Animals.** See Ani-mals, Cruelt

Cruelty to Animals. See Anity to.

s the Cruelty to Children, Preven-aring tion of. The fact that defenseless chil-As a tion of. The fact that defenseless chil-are treated by inhuman parents and others one under whose care they fall has led to the bases. formation of societies and to legislation d on for their protection. The first of these tury, societies was formed in New York and the the the largest and most influential. Then they spread to the other large hody American cities. Liverpool in 1883 and I ondon in 1884 were the first to follow in England, and legislation has been passed in both countries to ald those engaged in this benevolent work. **Cruikshank** (kruk'shank). GEOBOR, since d as pictorial satirists after Hogarth, horn at the London in 1792, of Scottish extraction. fixed He began early as a political satirist. In each 1837 he commenced in Bentley's Miscel-more lang his famous series of etchings of the steel illustrative of Dickens' Olicer Tecist, outh Having connected himself with the tem-the perance movement he produced the Bottle, orn, a powerful and popular series of designs. He latterly turned his attention to oil Cruelty to Children, Preven-

#### Cruikshank

#### Cruiser

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#### Crusades

Crusades

**Crusades** ferred to term himself, Protector of the Holy Sepulcher. At his death in 1100 he was succeeded by his brother Baldwin, who had in the earlier part of the Cru-sade established himself in Edessa, and made himself ruler of an extensive ter-ritory stretching over the Armenian mountains and the plain of Mesopotamia. The second great and regularly con-ducted Crusade was occasioned by the loss of Edessa, which the Saracens con-quered in December, 1144. Fearing still graver losses, Pope Eugenius III, sec-onded by Bernard of Clairvaux, exhorted the German emperor, Conrad III, and the King of France. Louis VII, to de-fend the cross. Both these monarchs obeyed, and in 1147 led large forces to the East, but returned in 1149 without having accomplished anything. The third Crusade was undertaken af-ter the capture of Jerusalem by Saladin in 1187, the monarchs Frederick I (Bar-barossa) of Germany, Philip Augustus of France, and Richard I (Cœur de Lion) of England, leading their armies in person. Frederick, marching by way of the Danube and crossing from Gal-ipoli, defeated the Turks at Philomelium (now Finiminum), and penetrated to Seleucia, but was drowned in the Selef. His son Frederick led the small remains to Acre and took part in the siege, but after his death in 1191 the German army dwindled away. The other monarchs-Richard and Philip Augustus-had in the mentime met at Vezelai in June, 190, and agreed to unite their forces at Messina in Sicily, where they spent six months at the end of 1190 and beginning of 1191. Philip joined the other Cru-saders before Acre on April 13, 1191; but Richard, whose fleet was separated by a storm, went to Cyprus, and, dispossess-ing Jasac Comnenus, made himself king. of 1191. Philip joined the other Cru-saders before Acre on April 13, 1191; but Richard, whose fleet was separated by a storm, went to Cyprus, and, dispossess-ing Isaac Comnenus, made himself king. It was not till the 8th of June that he reached Acre, which surrendered a month later. Jealousies, however, arose be-tween the monarchs, and within a few weeks after the fall of Acre the French king returned to Europe. Richard, now sole leader of the expedition, defeated Saladin and occupied Jaffa or Joppa; but having twice vainly set out with the de-sign of besieging Jerusalem, he concluded (September 2, 1192) a truee of three years and three months with Saladin, who areed that pilgrims should be free to visit the Holy Sepulcher, and that the whole sea-coast from Tyre to Jaffa (in-cluding the important fortress of Acre) should belong to the Crusaders. The fourth Crusade was set on foot by Pone Innocent III, who commissioned Fulk of Neuilly to preach it in 1198.

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#### Crusado

the Crusades were of considerable indi- ophthalmia. rect value in that by these joint enter- are represen prises the European nations became more tomostraca prises the European nations became more connected with each other, the class of citizens increased in influence, partly be-cause the nobility suffered by extrav-agant contributions to the Crusades, and partly because a more intimate commer-cial intercourse greatly augmented the wealth of the cities, and a number of arts and sciences, till then unknown in Eu-rope, were introduced. rope, were introduced.

Crusado. See Cruzado.

Tope, were introduced. Crusado. See Cruzado. Crusca, ACCADEMIA DELLA. See Acad-cmy. Crustacea (k r u s-tā's h e-a), one of which is divided the great group of Articulate or Annulose animals. The body is divided into head, thorax and abdomen, of which the two former are united into a single mass, cephalothorax, covered with a shield or carapace, and the abdomen usually presents the ap-pearance of a tail. In some—the sand-hopper, wood-louse, etc.—the head is partially distinct from the thorax. The Crustacea breathe by branchize or gills, or by membranous vesicles, or by the general surface; and the body is com-posed of a series of rings more or less distinct. They possess the faculty of re-producing lost parts in an eminent de-gree. The integument is chitinous (see *Chitin*) and remains elastic in some, as the Isopods, throughout life. But in the majority it is calcified or trans-formed into a hard shell, prisms of car-bonate of lime being deposited in the outer layer. It consists of a great num-ber of distinet pieces connected together by just as among the higher animals cer-tim hones are connected together by partiales. Several species, if not all, molt or cast these outer skeletons or heals in the progress of growth; this is the case with crabs, crayfish, etc. The general grouping of the Crustacean is sometimes based upon the successive met-amorphoses the dup the higher Crustaceans undergo before reaching the adult form. Thus, the first stage of the lobster em-bryo is that of a minute object with three pairs of limbs, known as the Nauplius form; in the second, or Zoëa stang, the codelothorax is provided with anterior, posterior, and hateral spines; the tinal form being reached by a series of molings. But for practical pur-poses the Crustacean may be considered as tanging thomselves under four sub-classes the Corpetion, the Edristage, the ceptedothorax is provided with for showing the diminution of tempera-anterior, posterior, and lateral spines; ture in water by its own evaporation, the final form being rached by a series. Wollaston's cryophorus consists of two of molengs. But for practical pur-glass globes united by a moderately wide posses the Crustacca may be considered glass tube. Water is poured in and as tanging themselves under four sub-boiled to expel the air, and while boiling classes: the Circipedia, the Entomost the apparatus is hermetically sealed, traca, the Podopathalmia, and the Edri- When it is to be used the water is made to

ophthalmia. Of these the Cirripedia are represented by the barnacles; the En-tomostraca by the cyclops, daphnia, etc.; the Podophthalmia by the shrimps, prawns, lobsters, etc.; the Edriophthal-mia by the fish-lice, wood-lice, beach-fleas, etc. Besides the orders comprised under these classes there are, however, several groups, such as the Merostomata and the Trilobites, which lie between the Crustaceans and the Insects, and are as yet unattached to either.

vet unattached to either. **Crutched Friars** (krucht), an order at Bologna in 1169, and so named from their adopting the cross as their special symbol. It originally formed the head of their distinctive staff: afterwards they wore it in red cloth on the back and breast of their blue habit.

Cruz, SANTA. See Santa Cruz

Cruzado (krū-za'dõ), a Portuguese coin. The old cruzado, or cruzado-velho, is worth 400 reis, or about 43 cents; the new cruzado, cruzado-novo or pinto, dating from 17:22, is worth 480 reis, or about 50 cents. Crwth (kruth), a Welsh name for a kind of violin with six strings, formerly much used in Wales. Four of the strings were played on by

whiles, rour of the strings were played on by a bow, and two were struck or twitched by the th um b. Its general length was 22 inches, and its thickness 1½ inches and inches.

Cryolite, or KRYOLITE mineral. a native fluoride of aluminium and sodium, of aluminium and sources, found at Evigtok, in Greenland, whence it is exported. It is of a pale grayish white or yellowish brown, occurs in masses of a foliated structure, and has a vitreous

of a fonated structure, and has a vitreous luster. It has been employed as a source of aluminium, and in the manufacture of a hard porcelainous glass of great beauty. In addition to the Evigtok deposit cryo-lite has been discovered in the Ural Moun-tains. tains.

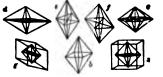
Cryophorus (kri-of'o-rus: Gr. kryos, cold), an instrument for showing the diminution of tempera-

# Crypt

run into one of the globes, and the other is buried in a freezing mixture. The aqueous vapor in the globe being thus condensed, a vacuum is produced, fresh vapor rises from the water in the other globe, which is again condensed, and this proceeds continuously till the water remaining in the globe has been, by the evaporation, cooled to the freezing point. **Crypt** (kript), originally a subterra-nean cell or cave, especially one constructed for sepulture. From the usage of these by the early Christians crypt came to signify a church under-ground or the lower story of a cathedral or church. It is usually set apart for monumental purposes, but is sometimes used as a chapel. The crypt is a common feature of cathedrals, being always at the east end, under the chancel or apse. The largest in England is that of Canterbury Cathedral; that of Glasgow Cathedral, formerly used as a separate church, is one of the most perfect pieces of archi-tecture in Britain. **Cryptogamous Plants** (krip-tog'a-mus). Car-

one of the most perfect pieces of archi-tecture in Britain. Cryptogamous Plants (krip-tog'a-mus), CBY-TOGAMIA, the botanical division embrac-ing the lower classes of plants having no evident flowers or in which the reproduc-tive organs are obscure. They propagate by spores. They are divided into cellu-lar and vascular cryptogans, the former comprising the alge, fungi, lichens, charas, liverworts and mosses; the lat-ter the ferns, horsetails, moonworts, rhiz-ocarps and lycopods. Cryptography (krip-tog'ra-fi), the sympathetic ink. The simplest method consists in choosing for every letter of the alphabet some sign, or another letter or group of letters. Thus the letter of Charles I to the Earl of Glamorgan with respect to the Catholics of Ireland was composed in an alphabet of 24 strokes in the records of the Clan-na-Gael Society were, according to the Times newspaper, writen in a cioher formed by taking in composed in an appliable of 24 stokes primarily, nomode, on monoth system variously placed about a line. The names (d), in which the axes are at right angles in the records of the Clan-na-Gael Society to each other, but all are of different were, according to the Times newspaper, lengths. 4th, The *beragonal* or *rhom-*written in a cipher formed by taking in *bohedral* system (c), which has four axes, each case the letter previous to that in-three in one plane inclined to each other tended; and the cipher devised by Lord at  $(0)^{\circ}$ , the fourth perpendicular to this Bacon consisted in an alphabet formed by plane. 5th, The monoclinic or oblique different arrangements of the letters a system (c), in which two axes are at and b in groups of five. All these right angles and the third is inclined to methods, however, are easily deciphered their plane. 6th, The diclinic or doubly by expects, as also is that employed by oblique system (f), in which two axes the Earl of Argyle in his plot against are at right angles, the third oblique to James II. in which the words of the both. 7th, The triclinic system (g), in letter were set down at concerted dis-which the three axes are inclined to each tances, the intervals being filled up with other at any angle other than a right anisheading words. The art of cryptog-angle. A crystal consists of three parts, ruphy has much developed in more recent. 1st. Plane surfaces, called faces, which times, and ciphers of great intricacy are said to be similar when they are equal

are frequently used. Even the more com-plex, however, present, as a rule, but little difficulty to an expert. **Crypton** (krip'ton), or KEYPTON, a new element discovered in June, 1898, by Prof. Ramsay, with Lord Rayleigh, joint discoverer of argon. It was obtained from the atmosphere, in which it exists in the proportion of 1 to 20,000,000. Spectrum: chief lines, green and yellow, the latter being nearly coinci-dent with the helium yellow line, D.3. **Crystal** (kris'tal). in chemistry and mineralogy, any body which, by the mutual attraction of its particles, has assumed the form of some one of the regular geometric solids, being bounded by a certain number of plane surfaces. The chemist procures crystals either by fusing the bodies by heat and then allowing them in a fluid and then



#### Forms of Crystals.

Forms of Crystals. abstracting the fluid by slow evaporation. The method of describing and classifying crystals now universally adopted is based upon certain imaginary lines drawn through the crystal, and called its arra. The classes are as follows: lat, The monometric, regular, or cubic system (a), in which the axes are equal and at right angles to one another. 2d, The aguare prismatic or dimetric system (b), in which the axes are at right angles to each other, and while two are equal, the third is longer or shorter. 3d. The right prismatic, rhombic, or trimetric system (d), in which the axes are at right angles to each other, but all are of different

# Crystal

to one another and similarly situated; dissimilar, when they are unequal or have a different position. 2d. Edges, formed by the meeting of two faces. They are said to be similar when formed by similar faces; dissimilar, by dissimilar faces. Equal edges are formed when the faces are inclined at the same angle to one another; unequal when they are inclined at different angles. 3d. Solid angles, formed by the meeting of three or more faces; and in this case also there are similar and dissimilar, equal and unequal solid angles according as they are formed by similar or dissimilar faces, and equal or unequal angled edges. The angles of crystals are measured by an instrument called the goniometer. **Crystalline Rocks** (krista - lin),

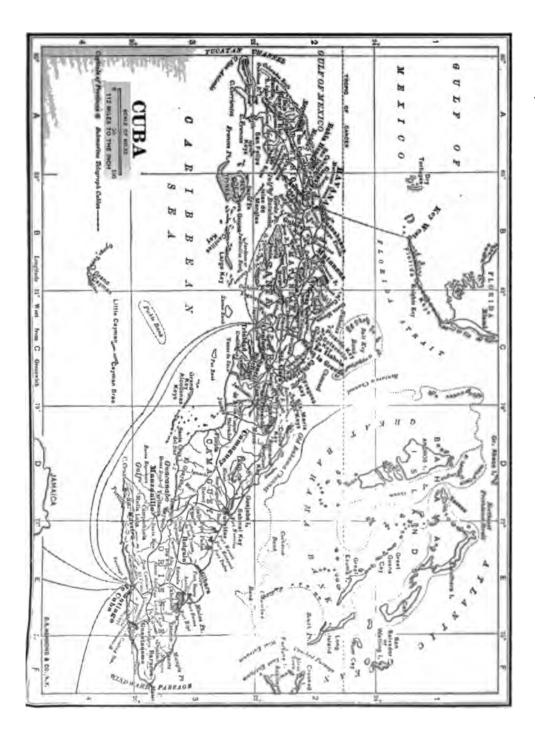
instrument called the goniometer. Crystalline Rocks (kris'ta - 11n), rocks of a crys-talline texture, such as granite, believed to have acquired this character by the action of heat and pressure. Crystalloid (kris'ta-loid). See Dial-ysis. Crystallomancy (kris-tal'lo-man-si), by means of a transparent body, as a precious stone, crystal globe, etc. The operator first muttered over it certain formulas of prayer, and then gave the crystal (a beryl was preferred) into the hands of a young man or virgin, who received an answer from the spirits within the crystal. Crystal Palace. a notable building

received an answer from the spirits within the crystal. **Crystal Palace**, a notable building at Sydenham, near London, from the ma-terials of the Great Exhibition of 1851, and originally designed as a great educa-tional museum of art, natural history, ethnology, etc. It is composed entirely of glass and iron, and consists of a long and lofty nave intersected at regular dis-tances by three transepts, of which the central is 384 feet long, 120 feet wide, and 168 feet interior height. It lies in about 2000 acres of ground, excellently laid out for recreation, and possesses many permanent attractions apart from the annual round of concerts, flower-shows, pyrotechnical displays, etc. Chief among its attractions is the collection of casts of architectural ornaments and sentpture, arranged in the Egyptian, Greek, Roman, Albambra, Byzantine, Mediaeval, Renaissance and Italian (Corts.

cereals, wines, etc. Pop. 22,619. Ctenoid (ten'oid), applied to the scales of fishes when jagged or pectinated on the edge like the teeth of a comb, as in the perch, flounder and turbot.

or pectinated on the edge like the teeth of a comb, as in the perch, flounder and turbot. Ctenophora (ten-of'o-ra), an order of marine animals be longing to the subkingdom Coelenterata, definable as transparent, oceanic, gelat-inous Actinozoa, swimming by means of *ctenophores*, or parallel rows of cilia dis-posed in comb-like plates. They develop no coral. *Pleurobrachia* (or *Cydippe*) may be taken as the type of the order, which includes the Beroidæ, the Cestum or Venus' girdle, etc. Ctesias (të'she-as), a Greek historian of about 400 B.C., contempo-rary with Xenophon and partly with Herodotus. He was a physician, and lived for seventeen years at the court of Persia. Ile wrote a *History of Persia*, of which little remains. Cuba (kū'ba), the largest and most Mexico; about 130 miles from Florida and, lying at the entrance to the Gulf of Mexico; about 130 miles from Florida and Yucatan. Its length is 750 miles, the breadth varying from 20 to over 120 miles; area 45,881 miles. It formed the richest and most important colony be longing to Spain, but was wrested from that country by the United States in the war of 1808. The island probably had its origin in volcanic action, the Copper Mountains, which run its entire length, ichearly demonstrating this. Pico Tur-quinos is the highest summit, being 7750 feet. From the base of this chain of high-land the land expands into meadows with numerous lagoons and swamps. The rivers are small and unnavigable. Good numerous lagoons and swamps. The rivers are small and unnavigable. Good harbors abound with deep water at Havana, Matanzas, Puerto Principe, Santiago, etc. Santiago,

The climate in the hilly districts is generally healthing and agreeable, but the lowlands are sickly and generally hot. many permanent attractions apart from the annual round of concerts, flower-shows, pyrotechnical displays, etc. Chief ceeds SS<sup>2</sup> F, but the heat is constant, the among its attractions is the collection of mean temperature in the lowlands being casts of architectural ornaments and 7S<sup>2</sup>. The climate is moist, the rainfall sculpture, arranged in the Egyptian, being about 90 inches; yet some portions Greek, Roman, Alhambra, Byzantine, of the interior require irrigation. There Mediaval, Remaissance and Italian (Courts, Csaba (chá'bà), a town of Hungary, from July to September, but no snow is about 110 miles S, F, of Buda-known to fall on the highest mountains, pest, near the White Körös, Pop. 37.547, though frost occurs occasionally. The the junction of the Körös with the Theiss, proportion of the wealth of the island; 12 miles S, E, of Budapest. Trade, cattle, the sheep, goat and mule are inferior in



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## Cuba

quality and number. The sylvan birds broke out. are numerous and in great variety, birds clared by of prey are but few, and snakes and rep-spain, and tiles are not very plentiful. The shores abound in turtle, and alligators are found in the deep gulfs and bays. Cuba is rich in minerals; those worked are mostly iron and copper. Of the former a large quantity is exported to the native ores. Bitumen is plentiful as a United States Gold, silver, coal and marble are found in the hilly country. Forests of mahog-ary, rosewood, cedar, ebony, fustic, palma, etc., abound on the mountains. Large bananas, cotton, coffee, yams and all Cubeb (I tropical fruits, together with immense any, rosewood, cetting, etc., abound on the mountains. crops of tobacco, sugar, rice, maize, bananas, cotton, coffee, yams and all tropical fruits, together with immense are raised. Tobacco baving etc., abound on the mountains. Large crops of tobacco, sugar, rice, maize, bananas, cotton, coffee, yams and all tropical fruits, together with immense herds of cattle, are raised. Tobacco forms the leading export, sugar having much fallen off by the competition of the beet-sugars of continental Europe and the unsettled state of the island. The sum of exports and imports amounts to about \$250,000,000, the exports being very largely to the United States. The manufacture of sugar, molasses, rum and cigars forms the principal industries. Over 2500 miles of railway are in opera-tion, and 5000 miles of telegraph. The Roman ('atholic religion was established by the Spanish law; education was made compulsory in 1880, but was not im-partially carried out. There are 800 public schools, beside a few schools in the towns and a university at Havana. None of the aboriginal race remain, and opossum. ('the was discovered in October, 1492. opossum.

opossum. Cuba was discovered in October, 1492, by Columbus, and colonized in 1511 by the Spaniards. Hernando, the governor, cruelly treated the natives, an inoffensive race who had received their oppressors with great hospitality, and by 1553 the entire race became extinct. In 1553 the French destroyed Havana; it was rebuilt and strongly fortified in 1554. In 1624 Cuba was taken by the Dutch, but was soon restored to Spain. From 1650 to 1700 ravaged by filibusters, who in 1688 plundered and destroyed Puerto Principe. 1700 ravaged by filibusters, who in 1688 the definite forms to which the eve is ac-plundered and destroyed Puerto Principe, customed in other styles of delineation, After 1700 Cuba prospered greatly. The and works for the most part in combina-English, with American colonists, cap-tured Havana in 1762, but in 1763 ex-changed it for other possessions. It then became a center of the slave trade. Negro insurrections occurred in 1844-48, used as an instrument of punishment, fre-and over 10,000 negroes were slaln in the latter year. In 1868 commenced an insurrectionary attempt at independence which continued until 1878, and in 1895 another rebellion

broke out. In April, 1898, war was de-clared by the United States against Spain, and in the struggle that ensued Cuba was freed from the dominion of Spain, the United States holding it until it would establish a satisfactory govern-ment of its own. This was accomplished in May, 1902, and the United States troops and officials were withdrawn. In 1906 a rebellious disturbance caused the United States to resume a temporary con-trol of the island, but in 1900, a stable republican government being formed, the American troops were withdrawn. Pop. (1915) 2,511,008; capital, Havana, 659,-818. In 1917 Cuba declared war against Germany, but took no active part. **Cubeb** (kubeb), the dried unripe fruit Of Cubeba officindlis, or Piper Cubeba, a native of Java and other East India isles, order Piperacea. **Cube Root** (küb röt), the number or quantity which, multi-plied into itself, produces the num-ber of which it is the root: as 2 is the cube root of 8, because twice 2 are 4, and twice 4 are 8. **Cubespar**, lime.

twice 4 are 8. **Cubespar**, an anhydrous sulphate of **Cubic Foot**, of any substance, so tained in a cube whose side is 1 foot. **Cubic Niter**, or CHILE SALTPETER, found chiefly in the rainless district of Tarapaca in Chile, where it occurs for the most part mixed with other salts, sand and clay. It crystallizes in obtuse-angled rhombonedra, not in cubes, and is used in considerable quantities both as a dressing for grass and mixed in artificial manures. It has also been used as a source of nitric acid, and after double de-composition with chloride of potassium has been employed in the manufacture of gunpowder. gunpowder.

**Cubist** (kû'bist), a 20th century school of art, whose disciples endeavor to portray what they feel rather than what they see. The cubist avoids the definite forms to which the eve is ac-

Cuckoo

#### Cuckoo-flower

Cuckoo-flower
Variable State St

Cuculidæ (ku-ku'li-dē), the systematic name of the cuckoo family. See Cuckao.

Cucumber (kű'kum-ber), the fruit of plant itself, belonging to the Cucurbita-cee or goard order, and supposed to have been originally imported into Europe from

the Levant. Though grown in England in the fourteenth century, it did not be-come generally used until after the reign of Henry VIII. It is now a common table vegetable in the United States. It is an annual with rough, trailing stems, large, angular leaves, and yellow male and female flowers set in the axils of the leafstalks. Other species of the cucum-ber genus are Cucumis Melo, the common melon, and the watermelon, C. Citrullus. Cucumber-tree (Magnolia a cumi-mata), a fine Ameri-can forest tree, so named from the ap-pearance of its fruit.

Cucurbit (kū-kur'bit). See Alembic.

Curcurbita (kū-kurbi-ta), the trpical genus of the order Cucur-bitaceæ. The pompion or pumpkin gourd is C. Pepo.

Difference in the pompion or pumpkin gourd is C. Pepo. Cucurbitaces (kū-kur-bi-tā'se-ē), the gourd order, consist-ing of large herbaceous plants, annual or perennial, with alternate leaves palm-ately veined and scabrous, and unisexual flowers. The corolla is monopetalous, regular, and with five lobes; the petals are usually either yellow, white, or green, and deeply veined; the fruit fleshy and succulent. The stems are scabrous, and the general habit is climbing or trailing, by means of tendriks. To this family be-long the melon, gourd, cucumber, colo-cynth, bryony, etc. Cudahy (kud'a-hi), a city of Milwau-kee Co., Wisconsin, on Lake Michigan, 6 miles s. of Milwaukee. It has numerous manufactures, including machinery, vinegar, rubber goods, etc. Pop. (1920) 6725. Cudbear (kud-bar), a purple or violet colored powder used in dye-ing violet-purple and crimson, prepared from



Cudbear (kud-bär), a purple or violet ing violet-purple and crimson, prepared from the Lecanora tartarča and other lichens grow-ing on rocks in Sweden, Scotland, etc. The color, however, is some-what fugitive, and in (Lecanora what fugitive, and in (Lecanora tar-baritain it is used tara). Cudbear Plant. (Lecanora tara). Cudbear tara



## Cuddapah

also exports grain and rice. 216. Pop. 52,-

also exports grain and rice. Pop. 52,-216.
Cuddapah (kud'di-pä), or KADAPA, a district and town of Hindustan, presidency of Madras. The district, of which the area is 8745 sq. miles, is traversed N, to S, by the Eastern Ghauts, and watered by the Pennar and its affluents. The forests contain much valuable timber, and the minerals include iron ore, lead, copper, diamonds, etc. Agriculture is in a flourishing condition, grain, cotton and indigo being largely grown. Pop. 1.291,267.—The town lies on a small river of same name, an affluent of the Pennar, 140 miles N. W. of Madras. It exports indigo and cotton. Pop. (1901) 16,432.
Cudweed (kud'wēd), the popular name in Britain for certain plants covered with a cottony pubescence, and belonging to the genera Gnaphalium. G. polycephalum, the cottonweed, is common in fields in the United States.
Cudworth (kud'wurth), RALPH, an English divine and philosopher, born in 1617. He took his degree and fellowship at Cambridge in 1053; in 1054 was chosen master of Chare Hall: in the following year regius professor of Hebrew; and in 1654 master of Chare Hall: in the Intellectual Nystem of the Universe, wherein all the Reason and Philosophy of Atheism is Confuted, and the Impossibility Demonstrated (folio)—a work of an exceedingly erudite kind, though tediously discursive in argument. He died in 1688.
Cuenca (kwan'ka), a city of Spain, in New Castile, capital of Unenca province, Si miles E. S. E. Madrid, Pop. 10.756. It was built by the Moors, stands on a crargy hill, and has a remarkands.

Pop. 10,756. It was built by the Moors, stands on a craggy hill, and has a re-markable cathedral. It was formerly celebrated for its art manufactures, Pop. of the province, 249,696; area, 6656

Pop. of the province, 249,696; area, 6636; square miles,
Cuenca, a town of Ecuador, the third oniversity. It has extensive sugar reteries, potteries and woolen factories. Typ. (1908 estimate) 30,000.
Cueva (kwâ'vâ), JUAN DE LA, a emiddle of the sixteenth century. His oworks comprise several tragedies, a heroic poem, a large number of lyrics and ballads, and the first Spanish didactic poem on the Art of Poetry. No details are known of his life.
Cufic (ku'tik), a term derived from the town of Cufa or Kufa in the town of the town of Cufa or Kufa in the town of the town of Cufa or Kufa in the town of the town o

the pashalic of Bagdad, and applied to a certain class of Arabic written characters. The Cufic characters were the written characters of Arabian alphabet in use from about the sixth century of the Christian era until about the eleventh. They are said to have been invented at Cufa, and were in use at the time of the composition of the Koran. They were succeeded by the Neskhi characters, which are still in use. Under the name of *Cufe* coins are comprehended the ancient coins of the Mohammedan princes, which have been found in modern times to be impor-tant for illustrating the history of the East. They are of gold (dinar), silver (dirhem), and brass (fals), but the sil-shores of the Baltic, and in the central provinces of European Russia. **Cuirass** (kwi-ras'), an article of de-fensive armor, protecting the body both before and behind, and com-posed of leather, metal, or other mate-rials variously worked. It was in com-mon use throughout Europe in the four-teenth century. In England it fell into disuse in the time of (harles II, and in France a little later. It was reintroduced by Napoleon I, and the achievements of his cuirassivers led to its adoption for regiments of heavy cavalry in most Euro-pean armies. See Arms and Armor. **Cuir-bouilly** (k w ér-ki-i-li), heather shores dence and with ornaments, used for sbields, girdles, sword-sheaths, coffers, purson show each mean early articles of the shores of surane and armor.

then impressed with ornaments, used for then impressed with ornaments, used for shields, girdles, sword-sheaths, coffers, purses, shoes, and many other articles; also, in the sixteenth century, for hang-ings for rooms gilded and painted, and, when heightened by gold or silver, known as cuir doré or cuir argenté. **Cuishes**, or CUISSES (kwish'es, kwis'-**Cuishes**, or CUISSES (kwish'es, kwish'es, highs, originally of buff leather, which was gradually superseded by plate iron or steel. Cuishes were introduced into

or steel. Cuishes were introduced into England about the middle of the fourteenth century.

teenth century. **Cujas** (k (i-z h a s). JACQUES, or CU-JACIUS, a distinguished French jurist, born about 1520: long professor of law at Bourges; died in 1540. He owed his reputation to the light shed by him on Roman law. He was the founder of the historical legal school, if not of scientific jurisprudence. **Culdees** (kul'dčz), a religious order which at an early period had establishments in many parts of Great Britain and Ireland, but are especially spoken of in Scotiand. The name is of uncertain etymology; but is probably

Culdees

#### Culicidæ~

from Celtic words meaning 'attendant 4 from Cullees distinctively so called seem to have been anchorites living under their own abbots and for long re-maining independent of Rome. Other measential point either of faith, ritual or constitution in which they differed from the other clergy of the western church. **Cullicidæ** (kû-li'-sidê), a subfamily Tipulidæ. The genus Culex comprehends the common gnat and the mosquito. **Culliawan Bark** (kū-lii'a-wan), ungent bark, derived from *Cinnamönum Culliawan*, a tree of the Moluccas, use ful in indigestion, diarrhea, etc. Called also clove-bark. **Cullen**, WiLLIAM, physician and med laso clove-bark. **Cullen**, WiLLIAM, physician and med in Euboan. **Cullen**, WiLLIAM, physician and med in cluwsks are: *Lectures on the Materia* Medica, Synopsis Nosologis Methodicas, and First Lincs of the Practice of Physic, **Cullera** (kl0-yà'rà), a town of Spain province and 25 miles s. by E. of Valencia. Pop. 11,047. **Cullinan Diamond**, an immense in the Tranayaal in the atoma four in the Tranayaal in the atoma of the tranewas in the atoma of the tranewas in the other the tranewas taken province and 25 miles s. by E. of Valencia. Pop. 11,047. **Cullinan Diamond**, an immense

Cullera (kül-yä'rå), a town ot span, province and 25 miles s. by province and 25 miles s. by contraction of the province and 25 miles s. by contraction of the province and 25 miles s. by contraction of the province and 25 miles s. by contraction of the province and 25 miles s. by contraction of the province and 25 miles s. by contraction of the province and 20 miles of the province and 20 miles of the province and 20 miles s. by contraction of the province and 20 miles of the province and 20 miles of the province and 1005. Before cultication of the province and 20 miles of the province and the province

## Cumberland

factures, cotton, horseshoes, etc., and is in It was the scene of important military a mineral-bearing region. Pop. 10,077. Cumberland, a city, county seat of Cumberland Mountains, in Ten-Allegheny Co., Mary-land, on the Potomac, 178 miles w. N. w. part of a range of the Appalachaan sys-of Baltimore. It is on the edge of the tem, rarely exceeding 2000 feet in height. great Cumberland coal basin, and iron is Cumberland Presbyterian largely worked in the vicinity. There are iron, steel, glass, cement and other manu-factures. Pop. (1910) 21,839; (1920) factures. 29,837.

factures. Pop. (1910) 21,839; (1920) 29,837. Cumberland, a river of the United States which runs through Kentucky and Tennessee into the Ohio, having a course of about (X0 miles, mavigable for steamboats, 200 miles. Cumberland, RICHARD, a notable dramatic writer, born at Cambridge. England, in 1732. After studying at Westminster and Cambridge he became private secretary to Lord Halifax, who bestowed on him a few years later a clerkship of reports in the office of trade and plantations. After one or two failures in writing for the stage, his West Indian, brought out by Garrick in 1771. proved eminently suc-cessful, and it was followed by the less popular Fashionable Lover, The Cholerio Man, The Note of Hand and The Battle of Hastings. In 1775 he became secre-tary to the board of trade, and in 1780 was employed on a mission to Lisbon and Madrid, but failing to satisfy the ministry was compelled to retire. In ad-dition he wrote several novels, poems, etc. He also edited the London Review. He died in 1811. Cumberland, WILLIAM ATOUSTUS, Putter of several and the Battle

The also edited the London Review. He died in 1811. **Cumberland**, WILLIAM AUGUSTUS, Of George II of England, born in 1721. At the battle of Dettingen he was wounded when fighting at the side of his father, and though unsuccessful at Fontenoy, where he had the command of the allied army, he rose in reputation by somewhat brutually subduing the in-surrection in Scotland caused by the handing of Charles Edward Stuart in 1745. In 1747 Cumberland was defeated by Marshal Saxe at Lafeld, and in 1757 he lost the battle of Hastenbeck, against D'Estrées, and concluded the convention at Closterseven, by which 40,000 Eng-lish soldiers were disarmed and dis-banded, and Hanover placed at the mercy of the French. He then retired in disgrace from his public offices, and took no active part in affairs. He died in 1765.

Cumberland Presbyterian Church, a religious denomination founded in 1810 during a revival in Tennessee. They accepted the Presbyterian creed with the exception of predestination. In 1906, when they united with the Northern church, they had 2922 churches, with 227,000 members, including 42,000 colored merbership. Cumbrae, or CUMBRAY (kumbra'), two Scottish islands in the Firth of Clyde, belonging to the county of Bute. They are both small, the only town be-ing Millport, a seaside resort. Cumbria (kum' b ri-a), an ancient prising, besides part of Cumberland, the Scotch districts Galloway, Kyle, Car-rick, Cunningham and Strathelyde, its capital being Alcluyd or Dumbarton. It was possibly at one time the chief seat of the (legendary) kingdom of Arthur, and in the sixth century was an important and powerful kingdom. It speedily, however, fell under Saxon dom-ination, and early in the eleventh century was given by Edmund of Wessex to Malcolm of Scotland to be held as a fiel of the cromot for the start. Cumbrian Mountains (kum' -bri-an),

still survives in Cumberland. Cumbrian Mountains (kum'-bri-an), a range of hills in England, occupying parts of the counties of Cumberland, Westmoreland, and North Lancashire The mountains rise with steep acclivities, enclosing in some parts narrow but well-cultivated valleys, with numerous pic-turesque lakes, this being the English 'Lake Country' so much frequented by tourists.

anding of Charles Edward Stuart in tourists. 1745. In 1747 Cumberland was defeated by Marshal Saxe at Lafeld, and in 1757 he lost the battle of Hastenbeck, against D'Estrées, and concluded the convention at Closterseven, by which 40,000 Eng-Sicily and Malta, whence it is exported. lish soldiers were disarmed and dis-banded, and Hanover placed at the light-brown color, with an aromatic smell mercy of the French. He then retired and caraway-like taste, and possesses in disgrace from his public offices, and took no active part in affairs. He died took hout the South the South two he became minister of the South feet wide through the Cumberland Moun-tains between Kentucky and Tennessee London, where he labored for half a and at the western extremity of Virginia.

## Cumming

#### Cumming

over two hundred works. He had a high reputation as an orator, but he was most widely known latterly in con-nection with his prophecies of the speedy coming of the end of all things. His most popular works were: The fireat Tribulation, The Redemption Draveth Nigh, Apocalyptic Sketches and Voices of the Night. Died in 1881. Cumming, ROUALEYN GEORGE GOR-a Scottish sportsman and writer, born in 1820; died at Fort Augustus, in Scot-land, in 1866. He entered the army, served some years in India, joined the Cape Rifles, and from 1843 till 1849 made five hunting expeditions into vari-ous parts of Africa. Records of his adventures are to be found in his Fire Years of a Hunter's Life (1850), and the Lion Hunter of South Africa (1856). Cummins, American legislator, born in Carmichaels, Pa., in 1850. He was governor of Iowa, 1902-08; elected U. S. Senator (Republican) in 1908 to suc-ceed W. B. Allison, and reëlected in 1909. Cumulative Vote (küm'ü - la-tiv), the system by which every voter is entitled to as many votes as there are persons to be elected.

which every voter is entitled to as m

Cuneiform Writing

the English court, and established important connections. See Comys. Cundinamarca (kön-di-na-märka one of the departments of the Republic of Colombia Area, estimated 79,810 square miles; p-537,658.

537,658. Cundurango (kun-du-ran'go). t dor to a plant found in Loya provinc-It is also found in Colombia and claimed to be useful in the cure of ca-cor, scrofula and other blood disease-Its virtues are said to have been di-covered by accident, an Indian woma administering it to her husband, who ca was suffering from internal cancer. Here purpose was to poison him and put hizzor out of his misery, but instead of dying he became quite cured. Despite this story, however, the actual value of the plant is in question. Cuneiform Writing (kū-nē'i-form;

plant is in question. Cunciform Writing (kū-nē'i-form; a wedge, and forma, a shape), the name applied to the wedge-shaped characters of the in criptions on old Babylonian and Persian monuments; sometimes also described as arrow-headed or nail-headed characters. They appear to have been originally of the nature of hieroglyphs.



cond w. IS Allison, and reflected in 1969, of the increptions on old Babylonian Cumulative Vote (kum a -la-tiv), described as arrow-headed with every voter is entitled to as many characters. They appear to have been and may give them all to one and may give them all to an intracting the condidates, as here are persons to be elected, or ignally of the nature of hierographic conditions. The principle was first introduced into Britain by the Brementary Education Act of 870, and has been applied on school board, and later in parlian mentary elections. It has been avocated for many years in the United States and has been emerited to a minor extent in Illinois and and to have been invented by the priming an pronounced it constitutional in 1891. (a probable Turanian race), from whom Cumyn (kum'in). CowYN, or CYM- they were borrowed with considerable of England and Scotland. It had its original possessions near the town of language. The use of the character, fouries, in France, and from one of however, ceased shortly after the reign by been invented by the subsequent Babylo of Alexander the Great; and after the appears in the further provinces. His were even regarded by some as the subout IR30, and the history in the supreme chancellor of Scotland work of a species of worm, by others as about IR30, and the history in the family counted among the function of Scotland work of a species of worm, by others as about IR30, and the history is the subsequent were given by Sume as the eight be fourteenth century it were even regarded by some as the subout IR30, and the history is and the histors of aspecies of worm, by others as about IR30, and the history is and the like. The first hints to was almost annihilated by Robert Bruce, tury; and the labors of Grotefend, Rask, who see apped settled down in of translation. Most of the inscriptions the state of the secand settled the means the state of the secand settle down in of translation. Most of the inscriptions the state of the secand settle down in of translation. Most of the

first discovered were in three different languages and as many varieties of cuneiform writing, the most prominent, life of Inigo Jonca, etc. Ife also edited and at the same time the simplest and latest, being the Persian cuneiform writ-etc., and contributed to many periodicals ing with about sixty letters. Next older in time and much more complex is what is designated the Assyrian or Bab-of from 600 to 700 characters, partly loop from 600 to 700 characters, partly sound groups. Finally cones the Accadian inscriptions, the oldest of all, originally proceeding from a people who had reached a considerable degree of civilization more than four thousand st Behistun, in Persia, cut upon the at Behistun, in Persia, cut upon the face of a rock 1700 fee high, and record-ing a portion of the history of Darius. The British Museum contains many thousands of inscriptions. Me decipherment, of which is in progress. Many have also a rich collection of inscriptions. See also Assyria. Cunene (ku-ne'ne), a river of South

a rich concerton of inscriptions also Assyria. Cunene (ku-në'ne), a river of South Africa, which enters the At-lantic after forming the boundary be-tween the Portuguese and German territories there.

Cuneo. See Coni.

Cuneo. See Coni. Cunningham (k un'i n g-h a m), the northern and most fertile district of Ayrshire, Scotland. Cunningham, ALLAN, poet, born in fertile district of Ayrshire, Scotland. Cunningham, ALLAN, poet, born in fertile district of Ayrshire, Scotland. Cunningham, ALLAN, poet, born in fertile district of Ayrshire, Scotland. Cunningham, ALLAN, poet, born in fertile district of Ayrshire, Scotland. Cunningham, ALLAN, poet, born in fertile district of Ayrshire, Scotland. Cunningham, ALLAN, poet, born in fertile district of Ayrshire, Scotland. Cunningham, ALLAN, poet, born in fertile district of Ayrshire, Scotland. Cunningham, ALLAN, poet, born in fertile district of Ayrshire, Scotland. Cunningham, ALLAN, poet, born in fertile district of Ayrshire, Scotland. Cunningham, ALLAN, poet, born in fertile district of Ayrshire, Scotland : appren-ticed in his eleventh year to a stone-mason. Having been employed by to the skin, and as the heated air cools (romek to collect materials for his Re-mains of Nithsdale and Galloway Song, nized as being forgeries. He then pro-nized as being forgeries. He then pro-methy by journalism, but after-wards obtained a situation in the stu-dio of Chantrey, with whom he remained till his death. His later works com-prise the draum of Sir Marmaduke Mar-machl; the novels of Paul Jones and Sir Michael Scott; the Songs of Scotland; the peculiar husk or cup (cupule) in the full tis enclosed. They are the oddon in 1842.—His son PETER are the oak, chestnut, beech and hazel. (1816-(8)) is also known as the author of a series of works, including The 20-3 20-3

Ton with regard to theological institu-tions.
(kū'pel), a small, shallow, por-ous, cup-like vessel, used in assays, to separate the precious metals from their alloys. See Assaying.
Cupid (kū'pid; Latt. Cupido), the god of love; corresponding with the Greek Erös. He is represented as a winged infant, naked, armed with a bow and a quiver full of arrows.
Cupola (kū'pola), in architecture, a spherical vault on the top of a dome. The Italian word cupola signi-fies a hemispherical roof which covers a circular building, like the Pantheon at Rome and the Round Temple of Vesta at Tivoli. The term is also applied dis-tinctively to the concave interior as op-posed to the dome forming its exterior. See Dome.
Cupping (kup'ing), a surgical op-

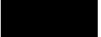
**Cupping** (kup'ing), a surgical op-eration consisting in the application of the cupping-glass in cases where it is desirable to abstract blood from, or draw it to, a particular part. When blood is removed the operation is termed cupping or wet-cupping; when no blood is drawn, it is dry-cupping. The cupping-glass, a cup-shaped glass vessel, is first held over the flame of a spirit-lamp, by which means the included air is rarefied. In this state it is applied to the skin, and as the heated air cools it contracts and produces a partial vac-uum, so that the skin and integuments are drawn up slightly into the glass and become swollen. If blood is to be drawn, a scarificator or spring-lancet is gener-ally used. **Cupressus.** See Cupress. Cupping (kup'ing). 8 surgical

#### Curaçao

but applied more strictly to a cross be-tween the sheep-dog and terrier. **Curaçao** (kö-ra-sä'o'), an island of the Dutch West Indies, in the Caribbean Sea, 46 miles N. of the coast of Venezuela; 36 miles long and 8 miles broad; capital V. illemstad, princi-pal harbor Santa Anna. It is hilly, wild and barren, with a hot, dry climate. Yellow fever has visited it every sixth or seventh year. Fresh water is scarce, and serious droughts occur. The tama-rind, cocoa-palm, banana and other useseventh year. Fresh water is scarce, and serious droughts occur. The tama-rind, cocoa-palm, banana and other use-ful trees are reared—among them three varieties of orange, from one of which the Curaço liqueur is made. Sugar, tobacco, cochineal and maize are also produced, but the staple exports are salt, and a valuable phosphate of lime used as a manure in its natural state, or made to yield valuable superphosphates. The islands of Curaçao, Bonaire, Oruba (or Aruba), the Little Curaçao form a Dutch government, the residence of the governor being at Willemstad. From the sizteenth century Curaçao was held in succession by the Spaniards, Dutch and British, and finally ceded to Holland at the general peace in 1814. Pop. 20,718; including the dependencies, about 50,000. **Curaçao**, which has a persistent aro-matic odor and taste. It is prepared from the yellow part of the rind, which is steeped in strong alcohol, the infu-sion being afterwards distilled and recti-fied and mixed with syrup. For the true orange, the common bitter orange of Europe is often substituted, and the genuine deep-yellow color imitated by caramel, etc. as a manure in its matural state or made to yield valuable superphosphates. The islands of Curaçao, Bonaire, Ornas (or Aruba), the Little Curaçao form a Dutch governnor being at Willemstad. From succession by the Spaniards, Dutch and Fritish, and finally ceded to Holland at the general peace in 1814. Pop. 29,718; saleated curassow. (*Cras pause*) is colled the precular kind of bitter orange growing in Curaçao, which has a persistent aro-matic dor and taste. It is prepared from the yellow part of the rind, which is steeped in strong alcohol, the infu-tion anixed with syrup. For the true orange, the common bitter orange of the sind of bitter orange of sources, which has a persistent aro-matic dor and taste. It is prepared from the yellow part of the rind, which is steeped in strong alcohol, the infu-vorange, the common bitter orange of sources are either stipendiary curate is one who is hired by the rector or vicar to source are pertual curace is one who caramel, etc. **Curari** (k0'rå-ri), Cu'rara. URARA, trasthe aqueous extract of a tree, the source with the blood, it causes denth by pa-rajusis of the nerves of the respiratory oranse. It may, however, be introduced in moderate doses into the alimentary caramel, etc. **Curassow** (k0-ras's0), or HOCCO, the source of the mains killed by it are wholesome as food. The acture in moderate doses into the alimentary canal without injury, and animals killed by it are wholesome as food. The active in moderate doses into the alimentary canal without injury, and animals killed by it are wholesome as food. The active is called the active of decreased or absent persons and inder various disabilities, or a tree, the person who has charge of the library or curate corresponds in the main to that of the straight down from the straight down from the straight of the scraight ligament which person who has charge of the library or curate source of the active of the straight ligament which in the straight down from the straight of the sourd of continuing straight down from the indiv



Crested Curasow (Craz a



## Curb-sender

clined to the horizon, so that this kind of roof presents a bent appearance, whence its name. Called also a *Man-*sers roof, from the name of its inventor.

tor. **Curb-sender**, an automatic signaling gir W. Thomson of Giagow and Prof. Fleeming Jenkin of Edinburgh, and used in submarine telegraphy. The message is punched on a paper ribbon, which is then passed through the transmitting ap-paratus by clockwork. The name is due to the fact that when a current of one kind of electricity is sent by the instru-ment another of the opposite kind is sent immediately after to curb the first, the effect of the second transmission being to make the indication produced by the first sharp and distinct, instead of slow and uncertain. Curcas. See Physic-nut.

Curculionidæ (kur-kû-li-on'-dē), the weevils or snout-beetles, one of the most extensive fami-lies of coleopterous insects. See Weevil. Curcuma (kur'kû-ma), a genus of plants of the ginger fami-ly, of which C. longa yields tumeric, C. sedoaria, zedoary. Curd. See Cheese and Milk.

Curfew (kur'fû; Fr. cowvre-few, cover fire), a practice originated in England by William the Conqueror, who directed that at the ringing of the bell at eight o'clock all fires and lights should be extinguished.



be extinguished. The law was re-pealed by Henry I in 1100, but the bell contin-ued to be rung in many districts to modern times and probably may still be

Curfew for Fire.-Dem- may still be in's Encyc. des Beaux heard. The name min's Arts.

min's Encyc. des Beaux heard. The name Arts. was also given formerly to a domestic utensil for cover-ing up a fire. In the United States an ordinance establishing a curfew, with the purpose of keeping young people off the streets, has existed in Salem, Massachu-setts, since Puritan days. Similar ordi-nances have of late been adopted in other cities. in general providing that children nances have of late been adopted in other cities, in general providing that children under 15 shall not frequent the streets af-ter 9 o'clock in summer and 8 in winter. Curia (kû'ri-a), PAPAL, in its stricter sense the authorities which ad-minister the papal primacy; in its com-

mon wider use all the authorities and functionaries forming the papal court. The different branches of the curia having respect to church government are the sacred congregation of cardinals, the secretariat of state, and the vicariate of secretariat of state, and the vicariate of Rome, the machinery employed being supplied by the chancery, the dataria. and the camera apostolica. As 'supreme judge' in Christendom the pope acts through special congregations and dele-gated judges, or through the regular tri-bunals of the rota and segnatura, and the penitentiaria. The institution of the papal chapel and the household of the pope (familia pontifica) are also classed as departments of the curia; and finally the functionaries maintaining the external relation of the pope—legates, nuncios, relation of the pope-legates, nuncios, apostolic delegates, etc. Formerly the curia included also the mechanism and functions of secular administration. Curiatii. See Horatis.

Curico (kū-ri-kō), a town of Chile, capital of province of same rame. Pop. 14,577. Area of province, 2978 sq. miles; pop. 119,811. Curie (kū-rē), PIERBE, physicist and chemist, professor of physics in the Sorbonne, born near Paris, 1859. He aided his wife, Marie (born in Poland in 1867), in the analytical study of pitch-blende, through which, in 1898, the re-markable element radium was discovered. Only the bronide of this was known until 1910, when Madame Curie succeeded in isolating the metal. He was killed acci-dentally in Paris, April 19, 1906, and Madame Curie was elected to succeed him as professor. as professor.

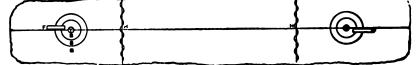
Madame Curie was elected to succeed him as professor. Curie, MARIE. See Radium and pre-vious article. Curitiba (kö-ri-të'ba), a town of S. Brazil. capital of the prov-ince of Parana, connected by railway with the port of Paranagua. Pop. 24,553. Curlew (kur'lū: Numenius), a genus of birds belonging to the order Grallatores, or Waders, and of the same family (Scolopacido) as the snipe and woodcock. The genus is charac-terized by a very long, slender and arc-uated bill, tall and partly naked legs, and a short, somewhat rounded tall. The bill is more or less covered with a soft, sensitive skin by which the bird is en-abled to detect its food in the mud. Two species of curlew inhabit the British Isles, the curlew proper, called in Scot-land the 'whaup' (Numenius argudts), and the whimbrel (N. photopus). They feed on various worms, small fishes, in-werts and molluscous animals, and are very shy, wary birds. Three species of

Curlew

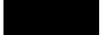
curlew are inhabitants of America—the long-billed curlew (N. longirostris), about 29 inches long, with a bill 7 to 9 inches in length; the Hudsonian, or short-billed curlew (N. Hudsonicus); and the Esquimaux curlew (N. boreå-lie) lis).

Lis). Curling (kurl'ing), a favorite Scot-lished in 1805. Lished in 1805. Currant (kur'ant), the name of two-the ice, in which contending parties slide large smooth stones having somewhat Grossularinces, cultivated in gardens for the shape of a flattened hemisphere, their fruit. The red currant, *Ribes* rw-weighing from 30 to 45 lbs. each, with brum, the fruit of which is used princi-an iron or wooden handle at the top, pally for tarts and jellies, is a native of from one mark to another. The space Southern Europe, Asia and North Amer-within which the stones move is called ica. The white currant is a cultivated the rink, and the hole or mark at each variety of the red, and is used chiefly for end the tcc. The length of the rink dessert and for conversion into wine. The from tee to tee varies from 35 to 50 black currant, *R. nigrum*, a native to most yards. The players are arranged in two parties, each headed by a skip or direc-in Russia and Siberia, is used for tarts

ministry during the vice-royalty of the Duke of Bedford his patriotism was re-warded with the office of master of the rolls, which he held till 1814, when he retired with a pension of £3000 a year. He died at Brompton in 1817. A col-lection of his forensic speeches was pub-lished in 1805.



Curing Rink. r. Tee. as, Rings round Tee called the Trough. r. Footboard. n. Hog-sore. tory in the number of players upon a and puddings and for a fine jelly recomplayers use two stones each. There will not cases of sore throat. Many players use two stones each. There of them the ornamental Rives surveys, may be one or more rinks according which produces a fine berry. In Austration the number of curlers. The object lia the name is given to Lewcopögen of the player is to play his stone as near Kichei, one of the Epacridacee, and in the stone nearest not the stone will had to his an tagonist. When the stones on both sides also Currants, where the origin of the stone nearest not cross a line, the tee counts one, and if the second, third, fourth, etc., belong to the same for a player's stone does not cross a line, for a the tee his shot goes for nothing and the stone is removed from the vicinity of Patras in front of the tee his shot goes for nothing and the stone is removed from the store, and also from Zante. Cepaging and, Canada, and elsewher.
Currant (kur'an). Johns Philipor, an enale the two and elsewhere.
Currant (kur'an). Johns Philipor, an enale different the size or seven the bar, and during the administration or at Newmarket, near Cork, in 1750. He was chueated at Trinity Collego. Dublin, went to London, was called to the bar, and during the administration reminer of the Irish House of Commons, the bar, and during the administration reminer of the Irish House of Commons, this elsquence, wit and ability soon red currant (preferably the former). A pint of water is added to every four play and country. On a change of spirits being mixed in the liquor before Curling Rink. T, Tee. B B, Ring, round Tee called the Trough. r, Footboard. E, Hog-



## Currency

it is set aside to ferment. Fermentation requires several weeks, and the wine is not fit for use for some months. For black-currant wine the berries are first put over the fire and heated to the boil-ing point in as small a quantity of water as possible. Fermentation as possible.

**Currency** (kur'en-di), any medium of exchange by which the processes of trade are facilitated. Originprocesses of trade are facilitated. Origin-ally all exchanges may be supposed to have been made directly by barter, one commodity being exchanged for an-other according to the convenience of the particular holders. In barter, however, it would obviously often be difficult to find two persons whose disposable goods suited two persons whose disposable goods suited each other's needs, and there would also arise difficulties in the way of estimat-ing the terms of exchange between un-like things, and of subdividing many kinds of goods in the barter of objects of different value. To obviate these some special commodities in general esteem and demand would be chosen as a medium of exchange and common measure of value, the selection varying with the conditions of social life. In the houting state furs and skins have been employed by many nations; in the pastoral state conditions of social life. In the houting state furs and skins have been employed by many nations; in the pastoral state sheep and cattle are the chief negotiable property. Articles of ornament, corn, nuts, olive oil, and other vegetable prod-ucts, cotton cloth, straw mats, salt, cubes of gum, bees-wax, etc., have all been at various times employed to fa-cilitate exchange. These, however, while removing some of the difficulties attend-ant upon barter, would only partially solve others. It would be felt by de-grees that any satisfactory medium must not only possess utility and value, but it must be portable, not easily destruc-iible, homogeneous, readily divisible, stable in value, and cognizable without great difficulty. The metals would nat-urally commend themselves as best sat-isfying these requirements, and accord-ingly in all historical ages gold, silver, copper, tin, lead and iron have been the most frequent materials of currency. The primitive method of circulating them appears to have consisted simply in buying and selling them against other commodities by a rough estimation of the weight or size of the portions of metal. Sometimes the metal was in its native state (c, g., rough copper or allu-vial gold dust), at others in the form of bars or spikes, the first approxima-tion to a coimage being probably rudely shaped rings. The earflest money was stamped on one side only, and rather of the nature of stamped ingots than coins

<text>

#### Currency

the necessary acts of police. It is still argued, as by Herbert Spencer in his Social Statics, that the coinage should be left to the ordinary competition of manufacturers and traders; but when this has occurred the currency has uni-formly become debased, and it is gen-erally held, in accordance with the max-ims of civil and constitutional law, that the right of coining is a prerogative of the state. Even in the case of state issues base money has been circulated, as in England in the reigns of Henry VIII and Edward VI, but the attempt is little likely to be repeated, the last of such debased issues, with the refusal to redeem it at its nominal value, hav-ing been made by a petty German prince early in the last century. In the matter of state supervision two precautions are early in the last century. In the matter of state supervision two precautions are particularly necessary; that the stand-ard coins shall be issued as nearly as possible of the standard weight, and that all coin worn below the least legal weight shall be withdrawn from circula-tion. The ground for these precautions is to be found for these precautions tion. The ground for these precautions is to be found in the broad general prin-ciple relating to the circulation of money, and known as Gresham's Law, that bad money invariably drives good money out of circulation, the heaviest coins being selected for exporting, hoard-ing malting conversion into invelvy. coins being selected for exporting, hoard-ing, melting, conversion into jewelry, gold-leaf, etc. The law holds good not only with regard to coins in one kind of metal, but to all kinds of money in the same circulation, the relatively cheaper medium of exchange being retained in circulation while the other disappears. Of the various systems of metallic cur-rency, the first adopted was that known as the single-legal-tender system, in which the state issued certified coins in one metal only. It was found, however, that in such cases the people invariably circulated for convenience coins of other metals, and there naturally arose out of this the adoption of a double or multiple legal tender system, in which coins were issued in different metals at a fixed rate issued in different metals at a fixed rate of exchange. To obviate difficulties aris-ing from the possession of two or more metals as concurrent standards of value. with the constant tendency of one or other to become more valuable as metal other to become more valuable as metal than as currency, a third system, the com-posite-legal-tender, canne into existence, in which coins of one metal were adopted as the standard of value, and token coins only issued in the other metals for the payment of small amounts. The last system is that now precalent in Great Britain; but the double-legal-tender sys-tem, to which the French have long ad-hered, and which long existed in the

It is still United States, has found an increasing acer in his number of advocates for its universal age should adoption. It was abandoned in the petition of United States in 1900 in favor of gold but when as the single standard of value. See 'y has uni- Bimetallism.

as the single standard of value. See Bimetallism. The circulation of representative money differs from that of standard metallic money in that it circulater only within the district or country where it is legally or habitually current. In the payment of debts to foreign mer-chants the only money which can be exported is standard metallic money. Hence Gresham's law holds with regard to paper money, which is, like light and debased coins, capable of driving out standard money. Examples of this are to be found in the suspension of specie payments by the Bank of England be-tween 1797 and 1819, in the history of the French assignats at the time of the revolution, and in the financial history of the American Civil war. The various methods on which the fissue of paper money may be conducted are exceedingly numerous and a matter of interminable debate. The state may either constitute itself the sole issuer of metallic money on the same lines as it con-stitutes itself sole issuer of metallic money, or it may allow corporations, com-panies, or private individuals to issue representative money under legislative control. The question as to the duty of a govcontrol.

The question as to the duty of a gov-ernment in this respect has been much obscured by the want of a clear appre-hension of the distinction between a real and a nominal currency. The doctrine of orthodox English writers on the cur-rency of the absolute convertibility of the bank-note, by which is intended a convertibility provided for by the action of government, is held by some writers to proceed on an altogether exaggerated and inaccurate notion of the functions of a government. Another idea, that the issue of paper money ought to be wholly controlled by government, or ought to rest entirely upon government, or ought to rest entirely upon government, and is held by many to misconceive the na-ture and objects of a paper currency. See also Bank and Money. Current-meter (k ur'en t-m ët'er), ('UBRENT GAUGE, an instrument for measuring the ve-locity of currents. It may be con-structed in various ways, e.g., a simple tube which is bent and has its lower end open to the current. The question as to the duty of a gov-

## Currents'

Currents (kur'ents), MARINE, masses of sea-water flowing or moving forward in the manner of a great stream. They are phenomena of the highest importance, both on account of their influence upon the climate of many maritime regions—an influence often reaching far inland—and their practical relation to the art of navigation. These currents are numerous, and taken to-gether constitute an occanic circulation the intricacy and irregularity of whose form is due to the number and vari-ety of the agencies at work. Among the theories which have been put forward to account for the existence of currents the chief place belongs to the theory of a circuit maintained between equatorial and polar waters. According to this Currents (kur'ents), MARINE, masses flected of sea-water flowing or wester the chief place belongs to the theory of a circuit maintained between equatorial and polar waters. According to this theory there is in either hemisphere an area within which the waters of the ocean are colder, and hence by many de-grees denser, than within the belt of the tropics. The natural result is a tendency of the colder and heavier water to sink and to diffuse itself over the lower portion of the ocean-bed, and a movement of the warmer and lighter water in the direction of the surface, over which it tends to become diffused. In other words, the colder waters will move beneath the surface in the direc-tion of the equator, and the warmer waters will flow along the surface in the direction of either pole. Hence, in either half of the globe there are two great and opposite currents—a cold cur-rent flowing from the pole towards the equator, and a *warm* current flowing from the equator in the direction of the pole. This theory has been excellently illus-trated by Dr. Carpenter's experiment, in which a trough of glass filled with movement of the warmer and lighter zon and the Orinoco, and thence into water in the direction of the surface, the Caribbean Sea. From the latter over which it tends to become diffused. land-enclosed basin its course is neces-In other words, the colder waters will sarily into the similarly shut-in basin move beneath the surface in the direc- of the Maximan Guil, whence it finally tion of the equator, and the warmer emerges through the narrow channel of waters will flow along the surface in Florida as the well-known gulf stream the direction of either pole. Hence, in (which see). In the case of the Pa-either half of the globe there are two cific Ocean there exists no such unbroken great and opposite currents—a cold cur-land barrier to the westwardly progress rent flowing from the pole towards the of the equatorial stream, however, is de-the equator in the direction of the pole. flected to the northward towards the This theory has been excellently illus- coasts of Japan (where it forms the trated by Dr. Carpenter's experiment, well-known Japan stream, setting to the water and having a lump of ice at one direction of the Aleutian Islands), end and a heated bar of iron at the while another portion turns southwardly "ther exhibits a similar circulation of in the direction of Australia and New hot and cold currents. To this theory Zealand. To the same action of the Kir C. Wyville Thompson opposed a winds, operating in connection with the theory of evaporation as the general obstacles presented by the land, diverg-cause of the movement, holding that in ent and counter-current is are due. Thus the Antarctic Ocean at least the return in the Atlantic and the Pacific there of moisture to the south to balance the flows between the two equatorial trade-cold indraucht of water that comes wind currents a counter-current in ex-from thence takes place in a large meas-actly the opposite direction, and there is ure through the atmosphere. Another a similar counter-current in the Indian grent general cause of currents is t

flected in southwesterly and north-westerly directions, respectively. It is to such influences that we may, in the main, attribute the well-known differ-ences between the climates of North America and Europe within correspond-ent parallels. Other causes, more local in their nature, must be looked for to explain the origin and direction of cur-rents in particular cases. In the case of surface or drift currents, for instance, it is probable that these are largely caused by the action of winds. Thus it is to the constant drift of surface water to the westward under the influ-ence of the trade-wind that the equa-torial currents of the Atlantic and Pa-cific are due. In the case of the Atlan-tic Ocean the westward-moving waters, encountering the eastward extension of the South American mainland, become of necessity divided into two streams, the one of which sets to the southward along the eastern coast of Brazil, while the other advances along the more north-wardly portions of the South American continent, past the outlets of the Ama-zon and the Orinoco, and thence into the Caribbean Nea. From the latter land-enclosed basin its course is neces-sarily into the similarly shut-in basin of the Mexican Guif, whence it finally

#### Currents

## Curriculum

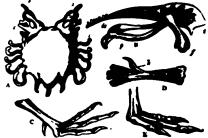
mines the direction of the surface cur-rents, the direction being inwards, where, as in the Mediterranean, the evaporation exceeds the inflow of fresh water; and outwards, as in the Baltic and the Black Sea, where there is an opposite state of matters. **Curriculum** (ku-rik'0-lum), origin-**Curriculum** (ku-rik'0-lum), origin-course over which the race was run, hence the whole course of study at a university necessary to qualify for a' particular degree. mines the direction of the surface cur-

particular degree.

university necessary to qualify for a particular degree. Currie (kur'i), SIR ARTIUE WIL-LIAM, a Canadian soldier and clucator, born in 1875. During the European war he commanded the 1st Canadian Division from 1914 to 1917. In the latter year he became commander-in-chief of the Canadian Corps in France. He was made a Knight Grand Cross of St. Michael and St. George; other honors included the French and Belgian Croix de Guerre and the American Distinguished Service Medal. He was appointed prin-cipal of McGill University in 1920. Currie, JAMES (1756-1805), a Scot-tish physician and the earliest editor of Burns, born in Dumfriesshire. He visited America in 1771, lived in Vir-ginin for five years and at the outbreak of the war returned home. He studied medicine and won renown as a doctor. Edited first edition of Burns in 1800. Curry (kur'i), an Eastern condiment, Curry (kur'i), an Eastern condiment, during spices. Currie atrong spices.

pepper, coriander, ginger, turmeric, and other strong spices. **Currying** (kuri-ing) is the art of dressing cowhides, calf-skins, sealskins, etc., principally for shoes, saddlery, or harness, after they have come from the tanner. In dress-ing leather for shoes the leather is first soaked in water until it is thor-oughly wet; then the flesh side is shaved to a proper surface with a knife of pe-culiar construction, rectangular in form with two handles and a double edge. The leather is then thrown into the water again, scoured upon a stone till the white substance called bloom is forced out, then rubbed with a greasy substance and hung up to dry. When thoroughly dry it is arained with a touthed instrument on the flesh side and bruised on the grain or hair side for the purpose of softening the leather. A fur-ther process of paring and araining purpose of softening the leather. A fur-ther process of paring and graining makes it ready for waring or coloring, in which oil and lampblack are used on the flesh side. It is then sized, dried and fallowed. In the process the leather is made smooth, lustrons, supple and waterproof.

Cursores (kur-so'rgs), or RUNNESS, an order of birds, which includes the ostrich, rhes, emeu, casso-wary and apteryx. The birds of this order are distinguished by their remark-able velocity in running, the rudimentof or



MORPHOLOGY OF CURSORES

MORPHOLOGY OF CCRSORES. A. Sternum of the Ostrich (Strukis esset s. Scapula; c. Coracoid. **b.** Side View of Pelvis of the Ostrich: i. Ilium; p. Publs; lschum; f. Femur. c. Fout of Apteryz Austr p. Tarso-metatarsus of the Apteryz, showing hallux placed high up on its posterior surf z. Foot of the Rhea Americana.

ary character of their wings, which are too short to be of use for flight, and by the length and strength of their legs The breast-bone is destitute of the ridge or keel which it possesses in most birds-hence the name *Ratita*. (L. ratis, m raft).

hence the name Ratitar. (L. ratia, raff). Curtis (kur'tis), GEORGE WILLIAM author, born at Providence Rhode Island, in 1824; died in 1892. It IS51 he published a popular work. Nil-Notes of a Howadji, and in 1852 The-Howadji in Syria. Later works were Lotus Eating, The Potiphar Papers Prue and I and Trumps. He becam popular as an orator. In 1850 he con meeted himself with the New York Tri-bune: in 1853 with Harper's Moathly-In 1857 he became the editor of Har-pur's Weckly, and of Harper's Bazer in 1857. He was an earnest advocate o civil service reform. Curtius (kurt'se-us), ERNST, a Ger-visited Athens and the Peloponnesus in 1857 to make antiquarian researches returned to his native country in 1840 appointed tutor to Prince-Frederice William: succeeded Hermann as profe-sor at Göttingen in 1856. Of his works which all relate to Greek antiquites, th least known is the History of Greece which has been published in English-Died in 1896.

which has been published in English which has been published in English Died in 1896. Curtius, Georg. brother of the pre-ceding, a distinguished phi

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Photo from Western Newspaper Union SIR ARTHUR WILLIAM CURRIE Commander of the Canadian forces on the Western Front in the Great War. He was appointed Principal of McGill University in 1920.

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#### Curtius

ologist, notable for his application of the comparative method to the study of the Greek and Latin languages. He was born at Lübeck in 1820, and in 1802 became professor of classical phil-ology at Leipzig. He died in 1885. Of his works, a Greek Grammar, Principles of Greek Etymology and The Greek Verb have been translated into English. **Curtius** (kur'she-us), METUS or MAECUS, a noble Roman youth, who, according to the legend, plunged with horse and armor into a chasm which had opened in the forum (B.C. 362), thus devoting himself to death for the good of his country, a southsayer having declared that the dan-gerous chasm would only close if what into it. into it.

Curtius Rufus, QUINTUS, a Roman Writer, author of a *History of Alexander the Great*, in ten books, the first two of which are lost. His style is florid, and his narratives have more of romance than of historical certainty. Nothing certain is known of his life. his life

Curule Magistrates (k u' r öl), in ancient Rome, the highest dignitaries of the state, dis-

the highest dignitaries of the state, dis-tinguished from all others by enjoying the p-ivilege of sitting on ivory chairs (scllæ curulles) when engaged in their public functions. The curule magistrates were the consuls, prætors, censors and chief srdiles, who, to distinguish them from the plebeian adiles, were called curule. **Curve** (kurv; Latin, curvæ, crooked), a straight line in more points than one; a line which may be cut by a straight line in the same direction. The doctrine of curves and of the figures and solids generated from them constitutes what is called the higher geometry, and forms one of the most interesting and important branches of mathematical accience. Curve lines are distinguished into algebraical or geometrical and transcendental or mechanical. The va-rieties of curves are innumerable; that is, they have different degrees of bending or curvature. The curves most generally referred to, besides the circle, are the a straight line in more points than one; took part in the Mexican war, rising in a line in which no three consecutive rank to brigadiergeneral. In 1852 he points lie in the same direction. The was made a justice of the Supreme Court doctrine of curves and of the figures and of Massachusetts; was Attorney-General solids generated from them constitutes of the United States 1853-57; in 1872 what is called the higher geometry, and the Alabama Claims arbitration; in 1873 important branches of mathematical was minister to Spain, and in 1874 was science. Curve lines are distinguished nominated by President Grant Chief into algebraical or geometrical and Justice of the United States Supreme transcendental or mechanical. The va-rieties of curves are innumerable; that is, they have different degrees of bending or curvature. The curves most generally referred to, besides the circle, are the ellipse, the parabola and the hyperbola, to which may be added the cycloid. **Curwen** (kur'wen), JOHN, an English of the tonic sol-fa method of teaching to village of the Zufi Indians, learning sing, was born November 14, 1816. He their language and traditions and gain-became a minister of the Independent ing initiation into their secret religious ('hurch, and became acquainted with thiss Glover's sol-fa system while visit-ang that lady's school at Norwich. Af-

ter that he devoted much of his time to bringing the new method before the pub-lic by lectures, publications, and the es-tablishment of a tonic sol-fa association and college. He died May 26, 1880. **Curzola** (kur'dzo-ia), the most beauti-in the Adriatic, stretching w. to E. about 25 miles, with an average breadth of 4 miles; area, 85 square miles. It is cov-ered in many places with magnificent timber. The fisheries are very produc-tive. Pop. 20,000.

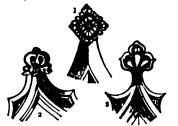
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Cushing

#### Cushing

mains of a sea-dwelling people on the Gulf coast of Florida. Died in 1900. **Cushing** (kush'ing), WILLIAM BAB-at Delafield, Wisconsin, in 1842; died in 1874. He was appointed to the Naval Academy in 1857, but resigned the next year, and on the outbreak of the Civil war entered the service as a volunteer officer. He distinguished himself by gal-lant service during the war, and espe-cially by his brilliant and daring exploit of blowing up the Confederate ironclad *Albermarle* while at anchor at Plymouth, North Carolina, in 1864. After the war he served in the Pacific and Asiatic squadrons, reaching the rank of com-mander. mander.

squadrons, reaching the rank of com-mander. Cushman (kush'man), CHARLOTTE S., actress, was born at Boston, Massachusetts, in 1816; died in 1870. Aer first theatrical appearance was in opera at the Tremont Thenter, Boston, but her reputation was gained in the drama, her first appearance in tragedy being as Lady Macbeth in 1835. She showed great power in this field, especially in Shakesperean characters, and for many years was a favorite on the American stage. She also manifested high ability as a dramatic reader. Cusp (kusp), the point at which two a common tangent. Such points are numerous in architecture in the inter-nal curvings of trefoils, heads of Gothic windows, etc. In the decorated and



Architectural Cusps 1, Henry VII's Chapel. Monument of Sir James Douglas, Douglas hurch. 3, Beauchamp Chapel, Warwick. 2, Mont Church.

perpendicular styles the cusps, in addi-tion to leaves, flowers, etc., were fre-quently ornamented with heads or ani-mals. In the Romanesque and Norman mals. In the Romanesque and Norman styles they were often ornamented with a small estimler which hore a flower or similar device.

Cusparia Bark (kus-pa'ri-a), the bark of the Gali-pra Cusparia, and some other species. See Angostura Bark.

Cusso (kus'sö; Hagenis Abyssinics), a small Abyssinian tree, order Ro-saceæ, yielding flowers which are im-ported into Europe and used as an an-thelmintic. Custard (kus'tard), a composition of milk or cream and egga, sweetened with sugar and variously flavored; cooked in the oven or stew-pan. pan.

pan. Custer (kus'ter), GEORGE ARMSTRONG, soldier, was born in Harrison Co., Ohio, in 1839. He was graduated from West Point in 1861, and entered the army as a cavalry officer. He par-ticipated in all but one of the battles of the Army of the Potomac, and was no-table for dash and daring. After the Civil war he performed arduous service on the frontier. In 1876, while fighting the Sioux Indians, he and his command were all killed. Custodia (kus-tô'di-a), a shrine of

were altacked by superior numbers and were all killed. Custodia (kus-tö'di-a), a shrine of precious metal in the shape of a cathedral, in which the host or the relics of a saint are carried in proces-sion on certain solemn occasions. Custom House (kus'tom), an estab-lishment where com-modities are entered for importation or exportation and the duties, bounties, etc., on the same are payable. Customs (kus'toms), duties charged upon goods exported from or imported into a state. In Great Brit-ain the articles now subject to duty are comparatively few in number, and of these spirits, wine and tobacco furnish two-thirds of the whole revenue from other countries customs duties are levied on the great majority of articles of im-port, and largely with the view of aiding home manufacture by increasing the cost of the imported article. See Tariff. Cutch. See Catechu. Cutch (kuch), a state in the west of

Cutch. See Catechs. Cutch (kuch), a state in the west of India, lying to the south of Sind, under British protection; area, 7616 sq. miles. During the rainy season it is wholly insulated by water, the vast salt morass of the Rann separating it on the north and east from Sind and the guicowar's dominions. Its southern side is formed by the Gulf of Cutch, and on the west it has the Arabian Sea. The country is subject to violent volcanic action The date is the only fruit which thrives, and the principal exports are cotton and horses. The Rann of Cutch covers about 9000 square miles, and is dry during the greater part of the year. I'on. of the state, 488,022.

## Cutcherry

Cutcherry (kuch'e-ri), in the East Indies, a court of justice or public office.

Cutch Gundava (gun-da'va), a di-vision of Beluchis-tan, in the northeast; area, 10,000 sq. miles; pop. 100,000.

can, in the northeast; area, 10,000 sq.
miles; pop. 100,000.
Cuthbert (kuthbert), ST., a celebrated leader in the early English Church, was born, according to the tradition, near Melrose about 635. He became a monk, and in 664 was appointed prior of Melrose, which after some years he quitted to take a similar charge in the monastery of Lindisfarne. Still seeking a more ascetic life, Cuthbert then retired to the desolate isle of Farne. Here the fame of his holiness at last persuaded to accept the bishopric of Hexham, which he, however, resigned two years after, again retiring to his hermitage in the island of Farne, where he died in 687. The anniversary of his church.
Cuticle (ku'ti-kl), the endermine comparison of the comp

Cuticle (kú'ti-kl), the epidermis or outermost layer of the skin, a thin, pellucid, insensible membrane that

Covers and defends the true skin. Cutis (ků'tis), in anatomy, a dense re-sisting membrane of a flexible and extensible nature, which forms the general envelope of the body; it is next below the cuticle, and is often called the true skin true skin.

true skin. **Cutlass** (kut'las), a short sword used by seamen. A guard over the hand is an advantage. It is, if well understood, a very effectual weapon in close contact; on account of its short-ness it can be handled easily, and yet is long enough to protect a skilful swords-uar man.

**Cutlery** (kut'ler-i), is a term applied to all cutting instruments made of steel. The finer articles, such as made of steel. The finer articles, such as the best scissors, penknives, razors and lancets are made of cast-steel. Table-naturalist, was born in August, 1769, at knives, plane-irons, and chisels of a very superior kind are made of shear-steel, of Wirtenberg, After studying at Stut-while common steel is wrought up into ordinary cutlery. One of the commonest family of Count d'Hériey, in Normandy, articles of cutlery, a razor, is made as where he was at liberty to devote his follows:—The workman, being furnished leisure to natural science, and in partic-with a bar of cast-steel, forges his ular to zoology. A natural classification blade from it. After being brought into true shape by filing, the blade is exposed then the mere-red by first brightening one. He was invited to Paris, established at side and then heating it over a fire free surface acquires a straw color (or it class, His lectures on natural bistery, may be tempered differently). It is again distinguished not less for the elegance of

East quenched, and is then ready for being justice ground and polished. Cuttack (kut'ak), a town of Hindu-stan, in Orissa, on the right luchis-bank of the Mahanuddy, 60 miles from 00 sq. its embouchure and 230 s. s. w. Calcutta It has little trade, and is known mainly a cele-for its beautiful fligree work in gold early and silver. Pop. 51,364. The district of ing to Cuttack has an area of 3654 sq. miles. It 635. It is well watered, and rice, pulse, sugar, as ap-spices, dyestuffs, etc., are grown along after the coast which is low and marsby, and imilar wheat and maize in the hill regions. Sfarne. On the coast salt is extensively manu-Cuth-factured. Pop. 2,062,758. isle of Cutter (kut'er), a small vessel, fur-oliness straight running bowsprit which may be hopric run in upon deck. It differs from the signed sloop in having no stay to support its jib. to his Cuttle-bone (kut'h), the dorsal plate where of Nepia officing as an inglish absorbent, but now used for polishing wood, painting, varnishing, etc., as also als or for pounce and tooth-powder, and for skin, canary-birds on which to sharpen their te that beaks. Cuttle-fish. Sec Cephalopoda, Squid

beaks.

Deaks. Cuttle-fish. See Ccphalopoda, Squid and Sepia. Cutty-stool (kut'i), a low stool, the stool of repentance, a seat formerly set apart in Presbyterian churches in Scotland, on which offenders against chastity were exhibited before the congregation and submitted to the minicongregation and submitted to the minis-ter's rebukes before they were readmitted to church privileges.

Cutwater, the sharp part of the bow of a ship, so called because it cuts or divides the water.

Cutworm, any worm or grub which plants, as cabbage, corn, beans, etc Cuvier (küv-yā), Georges Lf CHRÉTIEN FRÉDÉRIC LEOPOLP

Cuvier

#### Cuxhaven

their style than for profound knowledge and elevated speculation, were attended y all the accomplished society of Paris. flowers of in January, 1800, he was appointed to the into red collège de France. Under Napoleon, who It is dis fully recognized his merits, Cuvier held ies, of w important offices in the department of public instruction. In 1810 he was re-ceived among the forty members of the French Academy. Ile died at Paris in 1832. Among the numerous works by which he greatly extended the study of natural history we may mention Re-cour sur les Révolutions de la Surface de la Globe: Leçons d'Anatomic Com-parée; Histoire Naturelle des Poissons; family fo Le Règne Animal, the last a general view of the animal kingdom, in which all ani-mals were divided into the four great classes; Vertebrata, Mollusca, Articulata and Radiata.-His brother FBÉDÉRIC (1773-1838) was also a naturalist of no mean order.

Cuyahoga Falls (kľa-hô'ga), a vil-lage of Summit Co., Ohio, 5 miles N.E. of Akron, on the Cuyahoga River. It has manufactures of iron and rubber goods, paper bags, flour. Pop. (1910) 4020; (1920) 10,200. Cuyp (koip), ALBERT. See KUYP.

**Cuzco** (közkö), an ancient city in for the same name, is situated in a wide valley about 11.300 feet above sea-level, between the Apurimac and Uruhamba. The houses are built of stone, covered with red tiles, and are many of them of the era of the Incas. The ruins of the fortress built by the Incas, a stupendous specimen of cyclopean architecture, are still to be seen, as well as other massive specimens of ancient Peruvian architec-ture. The inhabitants manufacture sugar, sonp, cotton and woolen goods, etc. ture. The inhabitants manufacture sugar, soap, cotton and woolen goods, etc. There is a university, a cathedral, etc. Cuzco is the most ancient of the Peruvian cities, and was at one time the capital of the empire of the Incas. In 1534 it was taken by Pizarro. Pop, about 30,000. Area of the department, about 30,000. Area of the department, about 30,000. **Cyamus** (si'a-mus), a genus of Crustacea, the species of which are parasites on the whale. They are called Whale-lice.

Cyanic Series (si-an'ik), in botany, a series of colors in flowers of which blue is the type, passing into red or white, but never into yellow. It is distinguished from the *conthis* ser-ies, of which the type is yellow, passing into red and white, but never into blue. Cyanide (sl'a-nid), a combination of cyanogen with a metal-lic base.

lie base. Cyanin (si'a-nin), the blue coloring of the violet, cornflower, etc. It is ex-tracted from the petals by alcohol. Cyanite, or KYANITE (si'a-nit, kl'a-formite, or KYANITE (si'a-nit, kl'a-family found both massive and in regular crystals. Its prevailing color is blue, but of varying shades. It is found only in primitive rocks. Cyanocean (si-an'o-ien), a compound

mals were divided into the four great primitive rocks. classes; Vertebrata, Mollusca, Articulata and Radiata.—His brother FB&DERIC (1773-1838) was also a naturalist of no mean order. **Cuxhaven** (kuks'hä'fen), a German and pilot station in Hamburg territory on the North Sea at the mouth of the Elbe. There is a good harbor. Pop. 14,888. **Cuyabá** (kö',yi-hä'), a city of Matto Grosso, Brazil, on Cuyabá River. Pop. 17,815. **Cuyahoga Falls** (kl'a-hö'ga), a vil See Prussic Acid. **Cuyahoga Falls** (kl'a-hö'ga), a vil See Prussic Acid. **Cuyahoga Falls** (kl'a-hö'ga), a vil See Prussic Acid. **Cuyahoga Falls** (kl'a-hö'ga), a vil See Prussic Acid.

it forms prussic (hydrocyanic) acid. See Prussic Acid. Cyanometer (si-a-nom'e-tér; 'meas-urer of blue') is the name of an instrument invented by Saussure for ascertaining the intensity of color in the sky. It consists of a circular piece of metal or pasteboard, with a band divided by radii into fifty-one portions, each of which is painted with a shade of blue, beginning with the deepest, not distinguishable from black, and decreas-ing gradually to the lightest, not distin-guishable from white. The observer holds this up between himself and the sky, turn-ing it gradually round till he find the tint of the instrument exactly corre-sponding to the tint of the sky. Cyanosis (si-a-no'sis), a condition in which, from lack of proper aëration, the blowd is blue instead of red; hence called the blue disease; the blue inaundice of the ancients. It is sometimes due to malformation of the heart, whereby the venous and arterial currents mingle. Cyanotype Process (si-and-tip), a picture obtained by the use of a cyanide. This process is in very common use by architects and engineers for copying plans, producing an image with white insurd of ferric oxalate (10 gr. to the

# Cyathea

os.); it is then exposed under the positive are low-growing, herbaceous plants, with and treated with a solution of potassium very handsome flowers. Several of them ferricyanide, by which the image is devel- are favorite spring-flowering greenhouse-oped. The color of the ground is deepened plants. An autumnal-flowered species by subsequent washing with solution of putersium bisubate

by subsequent washing with solution of potassium bisulphate. **Cyathea** (si-ath'e-a), a genus of Polypodiacese, characterized by having the spores, which are borne on the back of the frond, enclosed in a cup-shaped indusium. There are many species scat-tered over the tropical regions of the world. *C. medullaris* is a fine New World. *C. medullaris* is a fine New World. *C. medullaris* is a fine New Jeanand species of comparatively hardy character. The soft, pulpy medullary substance in the center of the trunk is an article of food, somewhat resembling Nago. sago

sago. **Cybele** (sib'e-lē), originally a goddess of the l'hrygians, like Isis, the symbol of the moon, but later introduced among the Greeks and Romans. Her worship was celebrated with a violent noise of instruments and rambling through fields and woods, and her priests were eunuchs in memory of Atys. (See Atys.) In later times she was repre-sented as a matron, with a mural crown on her head, in reference to the improved condition of men arising from agriculture and their union into cities. **Cycadaces** ( $sl-ca-dl'se-\bar{e}$ ), or CYCADS,



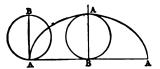
Cyclamen (cultivated garden variety),

Cyclamen (cultivated garden variety).
 Cyclamen (cultivated garden variety).

Cycling

#### Cyclobranchiata

**Cyclobranchiata** be done by a skilled cyclist is the journey of 12,000 miles performed by Mr. Thomas Stevens across the continents of Amer-ica, Europe and Asia on a bicycle. Commencing in April, 1884, he crossed first America, then Europe, then Asia, inishing at Yokohama in Japan in De-cember of the same year. Motor cycles, moved by gasoline engines, have come into common use. The bicycle and the motof-cycle are employed in military and police service. See Bicycle and Tricycle. **Cyclobranchiata** (si\*Klöbreng-Ki-ä'-ta), an order of gasteropods in which the branchize or or gans of respiration form a fringe around the body of the animal, between the edge of the body and the foot. The order consists principally of the limpets. **Cycloid** (si\*klöd; Gr. cyclos, circle), a curve generated by a point in the plane of a circle when the circle is voled along a straight line and kept al-ways in the same plane. The genesis of the common cycloid may be conceived by imagining a nail in the circumference of a carriage-wheel; the curves which the nail describes while the wheel runs for-ward are cycloids. The cycloid is the curve of swiftest descent; that is, a heavy body descending by the force of its own gravity will move from one point of this curve to any other point in less time than it will take to move in any other curve which can be drawn between these points. Also, a body falls through any are of an inverted cycloid in the same time whether the arc be great or small. In the figure let the circle of which the



can be made to record and locate every inequality in the roadbed of a railroad. Cycloid Fishes, an order of fishes according to the arrangement of Agassiz, having smooth. round, or oval scales, as the salmon and herring. The scales are formed of con-centric layers, not covered with enamel and not spinous on the margins; they are generally imbricated, but are some-times placed side by side without over-laughter. lapping.

times placed side by side without over-lapping. Cyclone (si'klön), a circular or rota-tory storm or system of winds, varying from 600 to 3000 miles in diam-eter, revolving round a center. which ad-vances at a rate that may be as high as 40 miles an hour, and towards which the winds tend. Cyclones of greatest violence occur within the tropics, and they revolve in opposite directions in the two hemispheres—in the southern with, and in the northern against, the hands of a watch—in consequence of which, and the progression of the center, the strength of the storm in the northern hemisphere is greater on the south of the line of progression and smaller on the north than it would if the center were stationary, the case being reversed in the southern hemisphere. An esti-cyclone is a storm of opposite character, the general tendency of the winds in it being away from the center, while it also shifts within comparatively small limits. cyclongedia (si-klö-pë'di-a), See Es-cyclopedia (si-klö-pë'di-a), in ancient architec

Cyclopean Works (si-klo'pe-an), in ancient architec-

**Cyclopean Works** (si-klo<sup>6</sup>pe-an), in ancient architecture, masonry constructed with huge blocks of stone unbewn and uncemented, found in Greece, Sicily, Asia Minor, Pern, etc. A similar style of work is to be found in the British Isles, as the Rock of ("ashel in Ireland or the Laws near Broughty-Ferry in Scotland... **Cyclops** (si klops; Gr. Kylöps, liter-and encedence) and big the spentation of the statist area three straight line when the circle began to revolve is called a cycloid. The length of the cycloid is four times the diameter of the generating circle, and its area three times the area of this circle. This line is very important in the higher branches of mechanics. **Cyclometer** (si-klom'eter), an appa-recording the distances traversed by wheeled vehicles and bicycles. It is also used in railroading. It is purely auto-matic, and by an ingenious attachment

## Cyclostomi

Cyclostomi (si - klos'tö-mi), CYCLOS-TOMATA (si - klos - tom'a-ta), an order of cartilaginous fishes having circular mouths, as the lamprey. Called also Marsipobranchis.

Cyder. See Cider.

Cydnus (sid'nus), a river in Cilicia, rising in the Taurus Moun-tains, anciently celebrated for the clear-ness and coolness of its waters.

**Cyd**onia (si-do'ni-a). See Quince.

Cygnus (sig'nus; 'the Swan'), one of Ptolemy's northern con-stellations. Within this constellation is one of the richest portions of the Milky Way.

Way. Cylinder (sil'in - dèr), a geometrical solid which, in popular lan-guages, may be described as a long, round, solid body, terminating in two flat, cir-cular surfaces which are equal and par-allel. There is a distinction between right cylinders and oblique cylinders. In the first case, the axis—that is, the straight line joining the center of the two opposite bases—must be perpendicular, and it may be regarded as described by the revolution of a rectangular parallel-ogram round one of its longer sides (the axis); in the second, the axis must form an angle with the inferior base.—In steam engines, the cylinder is the cham-ber in which the force of the steam is exerted on the piston. Cylindrical Lens (sil-in'drik-al), a

Cylindrical Lens (sil-in'drik-al), a faces are cylindrical, instead of spherical, which is usually the case. A convex cyl-indrical lens brings the image of a source of light to a focus in a line instead of in a point. They are usually plano-cylin-drical; that is, cylindrical on one side and flat on the other.

Cylindrical Vaulting, in a r c h i-most ancient mode of vaulting, called also a wagon, barrel or tunnel roof. It is a plain half-cylinder without either groins plain hi or ribs.

Cyllene (sil-le'ne) a mountain of Southern Greece, 7789 feet high.

high. **Cyma** (s I'm a), in architecture, a wavy molding the pro-file of which is made up of a curve of con-trary flexure, either concave at top and convex at bottom or the reverse. In the first case it is called a



cersa. It is a member of the cornice, standing below the abacus or corona. **Cymbals** (sim'bals), musical instru-ments consisting of two basins of brass with a plane periphery, which emit a ringing sound when struck together. They are military instruments, but are now frequently used in orches-tras. tras.

Cyme (sim), in botany, a mode of in-florescence in which the princi-pal axis terminates in a flower, and a



by me there are bound of a more of the principal axis terminates in a flower, and a number of secondary axes rise from the forom these secondary axes others may arise terminating in the same way, and so on, giving Cyme.
cyme a flat-topped or rounded mass. Examples may be found in the common elder and the Caryophyllaces.
Cymri (kim'ri), a branch of the Celtic arguing family of nations which appears to have succeeded the Gaels in the great migration of the Celts westwards, and to have driven the Gaelic branch to the west (into Ireland and the Isle of Man) and to the north (into the Highlards of Scotland), while they themselves driven out of the Lowlands of Britain by the invasions of the Angles, Saxons and Jutes, and compelled to take refuge in the mountainous regions of Wales, Cornwall and the North (sin-ang'kč), a name given to several diseases of the the terms in the several diseases of the the terms in the several diseases of the the terms in the several diseases of the the terms of the terms in the several diseases of the the terms of the terms in the several diseases of the the terms in the terms in the several diseases of the the terms in the terms in the several diseases of the the terms in the several diseases of the the terms in the terms is the terms in the terms is the terms in the terms in the terms in the terms is the terms in the terms in the terms in the terms is the terms in the terms in the terms is the terms in the terms in the terms in the terms is the terms in the terms in the terms is the terms in the terms in the terms is the terms in the terms in the terms is the terms in the terms is the terms in the terms is the terms in terms in the terms is the terms is the terms in terms in the terms is the terms is the terms is the

Cynanche (sin-ang'ke), a name given to several diseases of the throat or windpipe, such as quinsy, croup, etc.

Cynara (kin'a-ra), a genus of Com-positæ, in many respects like the thistle. The two hest-known species are the artichoke and the cardoon. Cynewulf (kin'e-wulf), an Anglo-Baxon or early English poet, whose name we only know from its being given in runes in the poems at-tributed to him, viz. Elene ('Helena'), the legend of the discovery of the true cross; Juliana, the story of the martyr of that name; and Crist ('Christ'), a long poem incomplete at the beginning. The name Cynewulf also occurs as the solution of one of the metrical riddles in the Angloname ( ynowill also eccurs as the solution of one of the metrical riddles in the Anglo-Saxon collection. Other poems, the Ang-Saxon collection. Other poems, the An-Saxon collection. Other poems, the An-Saxon collection. Other poems, the An-dreas, the Wanderer, the Seafarce, etc., have been secribed to him without suff cient grounds. Cynewulf probably lived in the first half of the eighth century.



From his poems we may gather that he spent the earlier part of his life as a wandering minstrel, devoting the later to the composition of the religious poems connected with his name. **Cynics** (sin'iks), a sect of philosophers among the ancient of Socrates, at Athens, about 380 B.C. Their philosophy was a one-sided development of the Socratic teaching by Antisthenes, and valued themselves on their contempt of arts, sciences, riches, and all the social civilization of life. They made virtue to consist in entire self-denial and independence of external circumstances. In time this attitude degenerated into a kind of philosophic savagery and neglect of decency, and the typics fell into contempt. **Cynic** (sl'nip), the gallfly, a genus of hymenopterous insects remarkable for their extremely minute head and large, elevated thorax. The females are provided with an ovipositor by which they make holes where they deposit their ergs in different parts of plants, thus producing those excressences which are known as galls. The gall of commerce used in manufacturing ink is caused by the *Cynips galle tinctorin* pioreing a species of onk which grows in the Le-

**Cynoglossum** hound's to ngue, a genus of plants, nat. order Boraginacee, consisting of herbs from the temperate zones. C. officinale and C. montanum are British plants. The former has a disagreeable smell like that from mice, and was at one time used as a remedy in scrofula. There are about tifty other species, all coarse plants. **Cynomorium** (sin orn o'r i-um), a order Cynomoriacee. C. coccinčum, the *pungus melitensis* of the old herbalists, is a small plant which grows in Sicily, Malta and Gozo, and was valued as an astringent and styptic in dysentery and benorrhage.

range of hills in Thessaly, memorable for two battles fought there in ancient times. The first was in B.C. 364, between the Thebans and Alexander of Pherse, in which Pelopidas was slain; and the se-ond in B.C. 197, in which the last Philip of Macedon was defeated by the Roman consul Flamininus.

Cynosura (sin o-s 0'r a), Crnosura (lit. 'dog's tail'), an old name of the constellation Ursa Minor, or the Lesser Bear, containing the North Star.

or the Lesser Bear, containing the North Star. Cynosurus, a genus of grasses. See Cynthius (sin'thi-us), a surname of Apollo, from Mount Cyn-thus, island of Delos, on which he was born. For the same reason Diana, his sister, is called Cynthia. Cyperaces (si-per-a'se-e), the sedges, a natural order of mono-cotyledonous plants including fully 2000 known species. The members of this or-der are grassy or rush-like plants, gener-ally growing in moist places on the mar-gins of lakes and streams. Their stem is a cylindrical or triangular culm with or without knots; the leaves are sheathing. They are of little or no economical use, which furnished the papyrus of Egypt. Cyperus (sip'er-us), a genus of plants. They are herbs with compressed spikelets of many flowers, found in cold climates, and characterized by the possession of eggs in any producing those excreases known as galls. The gall of common want, The Cynips galler tinctoring piercing a species of oak which grows in the Le-dy, produces the hairy excressences seen on the rosebush and the sweet-brier. See Baboon. Cvnoglossum (si-nö-glos'um), hound's to ngue, a to refer Boraginaces, to refer Boraginaces, to refer Boraginaces, to refer by supplied as the species are mostly natives of swampy districts. Cypress (si'pres), a genus of config-ous trees. The Cupress out trees. The Cupress out trees. The Cupress out trees and characterized by the possession of bisexual flowers. Several kinds are cul-bisexual flowers. Cynocephalus (si-nö-glos'um), hound's to ngue, a to refer Boraginaces, to refer Boraginaces, to refer Boraginaces, the unbrella palm, is useful in aquaria.

Cynosarges (si-nu-sar'jéz), in ancient for the found start of the grows in Sicily, much valued also on account of their sections, the founder of the founder

## Cyprian

green American cypress or White Codar (O. thyoides), etc. The Taccodium dis-tichum, or deciduous cypress of the United States and Mexico, is frequently



Cypress (Cupressus sempertirens, var. fastigiata).

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malacopterygious fishes, allied to the Cyprinide, or carps. **Cyprinus** (si-pri'nus), the carp genus of fishes, type of the family Cyprinide (which see). **Cypripendium** (si - pri - pé'di-um), lady's slipper, a ge-nus of plants of the nat. order Orchidacez. Three species are natives of the United Three species are natives of the United States. C. arictinum, the ram's-head, is found from Canada to Vermont. One species (C. calceolus) is a native of Britain.

Britain. **Cypris** (sip'ris), a genus of minute fresh-water crustaceans popu-larly known as waterfleas. They have the body enclosed in a delicate shell and swim by means of cilia. The Cypris is common in stagnant pools, and is very often found in a fossil state.

often found in a fossil state. **Cyprus** (si'prus), an island lying to the south of Asia Minor, and the most easterly in the Mediterranean. Its greatest length is 145 miles, maxime of breadth about 60 miles; area, 3584 sq. miles. The chief features of its surface are two mountain ranges, both stretching east and west, the one running close to the northern shore, and extending through the long northeastern horn or prolonga-Cypres (Cupresus semperires, var. Jacky 130.
Cypres (Cupresus semperires, var. Jacky 130.
Called the Virginian cypress. Its timber is valuable, and under water is almost for miles. The chief features of its surface is valuable, and under water is almost for miles. The chief features of its surface is valuable, and under water is almost for miles. The chief features of its surface is valuable, and under water is almost for miles. The chief features of its surface is valuable, and under water is almost for miles. The chief features of its surface is valuable, and under water is almost for miles. The chief features of its surface is valuable, and under water is almost for miles. The valuable is and value is the bare and most for miles in ercerce is defined in 25% for having preached the forest or off, its surface at Carthage, but compose his writings are eighty-one forein his sardens at Carthage, but compose his writings are eighty-one forein his sardens at Carthage, but composed in 25%, for having preached the forein is the same on of the island. The prese is famous, for having preached the fore off, in his sardens at Carthage. Water water, content supervision, and the island tree is the principal industry. Locusts formerly sources or first walls of soft-fine in the a carase kind of surface or official letters, besides several.
Cyprinidæ (si-prin'idē), the carpa how nearly extinct. Wheat, a family of soft-fine sure are now nearly extinct. Wheat, a family of soft-fine sure areaded in 25% for having preached the original letters, besides severat.
Cyprinidæ (si-prin'idē), the carpa how nearly extinct. The wine is famous, feeble jaws, fill-rays few in an subces, other and soft the siland. The principal towns are reared on the extensive pasture the less carnivorous of fishes. They sing or Nicosia, the capital, the only considerable danad town, and the submot. The members is showers, a family of soft-fine how sets are reared on the extensive pasture principal towns or the fo



abain Egypt, Cyprus in 57 B.C. became a Roman province, and passed as such to the eastern division of the empire. In 1191 it was bestowed by Richard of England (who had conquered it when engaged in the third crusade) on Guy de Lusignan, and after his line was 'ex-tinct it fell into the hands of the Venetians (1480), with whom it re-mained till it was conquered by the Turks in 1571 and annexed to the Ottoman Empire. In 1878 it was placed under the control of Great Britain by a treaty which recognized the sovereignty of the Sultan and granted to Turkey a speci-fied subsidy, which, however, was not paid

under the control of Great Britain by a treaty which recognized the sovereignty of the Sultan and granted to Turkey a speci-fied subsidy, which, however, was not paid directly but retained as an offset against British claims on the Ottoman Empire. During the European war Cyprus was formally annexed by Britain (1914). Cyprus has become very prosperous during recent years. Modern roads, har-bor works and schools have been built, and irrigation schemes have aided in the development of agricultural industry. The local council consists of a commissioner and a legislative council of 18 members. The total exports for 1914 amounted to \$2,500,000; imports, \$3,300,000, Pop. (1911), estimated, 275,000, of whom more than three-fourths belong to the Cypriote branch of the Greek Orthodox Church. **Cypselus** (sip'se-lus), a genus of vogeners. One peculiarity in this family is that the hind toe is turned forward along with the three anterior toes. **Cyr** (ser), Sr., a French village in the department of the Schen-and-Oise, 1 league west of Versailles; famous for the seminary for the elucation of ladies of rank which Louis XIV founded here. During the revolution this institution was done away with, and the fine buildings imally converted into a military school by Napoleon (1803). Pop. of the com-mune, 4253. **Cyrenaica** (si-trena<sup>7</sup>/4</sup>ka), once a powerful Greek state in

**Cyrenaica** (site-naïi-ka), once a powerful Greek state in the north of Africa (corresponding partly with the modern Barca), west of Egypt, comprising two cities (Pentapolis), among which was Cyrene, a Spartan colory founded in 631 n.c. In later times it came into the banks of the Prolendes, and in n.c. 95 the Romans obtained it. The Vrub invasion ruined it (647). Cyremical is at present a vast but as yet very imported by explored field of particulties. **Cyremaics** (siterma<sup>3</sup>ba) and a

Cyrenaics (directariliss), a philosophy Cyrenaics (directariliss), a philosophy Rec. by Aristiputs, a native of Cyrene and a pupil of Sociates. See Aristipputs

Cyrene (si-rö'nð), in ancient times a celebrated city in Africa. about 10 miles from the north coast, founded by Battus and a body of Doriau colonists, B.C 631. Numerous interesting renains have been discovered here. The town now occupying the site of the ancient Cyrene is a miserable place in the vilayet of Barca. See Cyrenaica. Cyril (sir'll), the name of three saints church. 1. CYRIL OF JERUSALEM, born there about the year 315 A.D., was ordained presbyter in 345, and in 350 or 351 became Patriarch of Jerusalem. He-engaged in a warm controversy with Acacius, the Arian Bishop of Cæsarea, by whose artifices he was more than once deposed from his episcopal dignity. He died in 386 or 388. We have some writ ings composed by him. 2. CYRIL OF ALEXANDRIA was educated by his uncle Theophilus, Patriarch of Alexandria, and in 412 A.D. sucveded him as patriarch. In this position his ambitious spirit brought the Christians into violent quarrels. At the head of the populace he assailed the Jews, destroyed their houses and their furniture, and drove them out of the city. Orestes, the pre-fect, having complained of such violence.

populace he assailed the Jews, destroyed their houses and their furniture, and drove them out of the city. Orestes, the pre-fect, having complained of such violence, was attacked by 500 furious monks. The assassination of Hypatia, the learned lecturer on geometry and philosophy, took place, it is said, at the instigation of Cyril. His quarrel with Nestorius, and with John, Patriarch of Antioch, regard-ing the twofold nature of Christ, con-vulsed the church, and much blood was shed between the rival factions at the Coun-cil of Ephesus in 431, the emperor having at last to send troops to disperse them. Cyril closed his restless career in 444. 3. ST. CYRIL, 'the Apostle of the Slavs,' a native of Thessalonica. He converted the Chazars, a people of Hun-mish stock, and the Bulgarians, about A.D. 860. He died about 868, He was the inventor of the Cyrillian Letters which took their name from him, and is probably the author of the Apologics which bear his name. Cyrillian Letters (si-ril'i-an), char-

which hear his name. Cyrillian Letters (si-til'i-an), char-acters used in one of the modes of wri ing the Slavonic language. In Poland, Bchemia and Luga-tia, Roman or German tetters are used; but among Russians, Bulgars, and all the Slavonic nations belonging to the Greek Church, the Cyrillic alphabet, a modification of the Greek one, is in use. Besides these there is the Glagolitic alpha-bet, in which the oldest literature of the Slavonic church is written. See Glago-litic. litic.

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## Cyrus

Czartoryski

Cyrus<

or talf-developed form of tapeworm, once erroneously supposed to be a distinct species of intestinal worm, **Cystideæ** (sis tid'e é), a family of feebly developed arms, occurring in the silurian and Carboniferous strata. **Cystitis** (sis ti'tus), inflammation of the bladder.

(sis - top'ter - us), the Cystopteris

Cystopteris (sis - top'ter - us), the biadder-fern, a genus of polypodiaceous, delicate, flaccid ferns. Cystotomy (sis-tot'o-mi), in sur-gery, the operation of cutting into the bladder for the extrac-tion of a calculus or other purpose.

Cythera (si-thē'ra). See Cerigo.

Cytifiera (si-the'ra). See Cerigo. Cytisine (sit'i-sin), an alkaloid de-tected in the ripe seeds of the Laburnum. It is of a nauseous taste, emetic and poisonous. Cytisus (sit'i-sus), a genus of plants belonging to the nat. order leguminose, suborder l'apilionaceæ. Th e members of the genus are skrubs or small trees, sometimes apiny.

are skrubs or small trees, sometimes spiny, with leaves composed of three leaflets, and with yellow, purple or white flowers. They belong to Europe, Asia and North Af-rica, and are very orna-mental plants. The 



Sco

the common addition (O. Laburnum; Rece Laburnum). Another species is the Al-Laburnum (C. Alpinus). The com-Laburnum). Another species is the Al-pine laburnum (C. Alpinus). The com-mon broom (C. Scoparius) also belongs to this genus. See Broom. **Cyzicus** (siz'i - kus), a peninsula of Asia Minor, 60 miles south-west of Constantinople. It was once an island, and the size of an ancient town of

island, and the site of an ancient town of

west of Constantinople. It was once an island, and the site of an ancient town of the same name. **Czar**, or TZAR (zär), an alternative the rulers of Russia before the revolution (see Russia), not improbably a corrup-tion of the Roman title Casar. It was first adopted in 1547 by Ivan the Terrible. The wife of the Czar was called Czarina or Czaritza. The heir-apparent and his wife were known as the Czarowitz (Cesar-evitch) and the Czarevna (Cesarevna). Imperial princes were grand dukes. **Czartoryski** (char-to-ris'kê), ADAM **Czartoryski** (char-to-ris'kê), ADAM **Czartoryski** (char-to-ris'kê), ADAM **Czartoryski** (char-to-ris'kê), ADAM Corn in 1770. His education was completed at the University of Ediaburgh and in London. He fought bravely under Kosciusko, and after the partition of his country in 1795 was sent to St. Peters-burg, where he formed a close friendshio with Prince Alexander, and was mad-winister of foreum affairs. In 1895 he resigned his office, and withdrew soon after from public affairs. On the out-break of the Polish revolution in 1830 he

took an active part and became the head of the national government. After the failure he lived at Paris. He died in 1861.

1 (chàs'lou), a town of Bohe-mia, 45 miles E.S.E. of Here Frederick the Great de-he Austriaus (1742). Pop. Czaslau Prague. feated the 10,198. Pop.

Czecho-Slovakia (chek'ö-slö-vak of Central Europe, bounded by Germany and Poland in the north and Austria and Hungary in the south. The state was formed at the close of the European Hungary in the south. The state was formed at the close of the European war (q. v.) from the former Austrian crown-lands of Bohemia and Moravia and parts of Silesia and Hungary. The soil is very productive, the chief crops being rye, oats, barley and flax. Fruit is abundant. The minerals are of great importance, and in-clude iron, coal, lignite and graphite. The history of the country until 1018 will be found under the articles *Bohemia*, *Mora-ria*, *Nilexia*, and *Austria-Hungary*. Area about 45,000 square miles; pop. about 12,000,000. 12,000,000.

12,000,000. The Czechs are the most westerly branch of the great Slavonic family of races. They have their headquarters in Bohemia, where they arrived in the fifth century. The origin of the name is un-known. The Czechs speak a Slavonic dialect of great antiquity and of high scientific cultivation. The Cz.wh language is distinguished as highly inflectional, with creat facility for forming derivatives. with great facility for forming derivatives, with great facility for forming derivatives, frequentatives, inceptives and diminutives of all kinds. Like the Greek it has a dual number, and its manifold declensions, tenses, and participial formations, with their subtle shades of distinction, give the language a complex grammatical struc-ture. The alphabet consists of 42 letters, expressing a great variety of sounds. In musical value the Czech comes next to Italian Italian.

During the European war (1914-18) the Czecho-Slovaks surrendered in great numbers to the Russians and then fought numbers to the Russians and then fought against their former masters, the Austro-Hungarians. When the Russian armies collapsed the Czecho-Slovaks marched toward Vladivostok, hoping to go from thence to France or Italy and fight again on the Allied side. The Bolshevist troops

were sent to disarm them. In the fighting that ensued the Czecho-Slovaks were vic-torious and seized upon a large section of the Transsiberiau railroad. They formed the nucleus of the army of North Russis which fought a long fight against the Bol-sheviki. sheviki.

Which rosgin a tong again equilate to 21.
Recognition of the new state was first made by Italy in April, 1918. A republican form of government was decided upon, under the presidency of Prof. Thomas G. Masaryk. Fornal recognition of Czecho-Slovakia was made in the peace treaties with Gormany and Austria in 1919.
Czegled (tseg'lad), a market town. Hungary, 39 miles s. z. of Budapest, in a district yielding grain and wine. Pop. 34,000.
Czenstochowa (chen-sto-kō'va), a town in Poland, government of Piotrkow. There is here a convent containing a famous picture of

Czenstochowa (chenstockova), a town in Poland, gov-crument of Piotrkow. There is here a convent containing a famous picture of the Virgin, which is visited by vast num-bers of pilgrims. Pop. 53,650. Czernowitz (cher'no-vits), a city of Galicia, on the right bank of the Pruth, 164 miles southeast of Lemberg. It has many imposing build-ings. Principal trade is oil, machinery. lumber, beer and toys. During the Euro-pean war (1914-18) it was the scene of many battles, being captured and evacu-ated by the Russians several times. It was formerly included in the now dismem-bered compire of Austria-Hungary. Pop. bered empire of Austria-Hungary. 87,128.

bered empire of Austria-Hungary. Fop. 87,128. **Czerny** (cher'ni), GEORGE, Hospodar of Servia, born in the neigh-borhood of Belgrade about 1770; beheaded by the Turks, in July, 1817. His true name was George Petrovitch, but he was called Czerny or Kara George, i. e., Black George. In 1801 he organized an insur-rection of his countrymen against the Turks, took Belgrade, and forced the Porte to recognize him as Hospodar of Servia. In 1813, however, he had to re-tire before a superior force, and took ref-ture in Austria. Returning to his country in 1817, he was taken and put to death. **Czerny** (cher'ni), KARL, pianist aud 1791; died in 1857. Among his pupils were Liszt, Thalberg and other distin-guished mudeians. **Czirknitz**. See Zirksitz.

has rougher scales than the underside, and has rougher scales than the other mem-bers of the same genus. It is preferred to the flounder for the table. The dab is has rougher scales than the other mem-bers of the same genus. It is preferred to the flounder for the table. The dab is plentiful upon sandy coasts, and may ac once be recognized by the roughness of its surface, or structure, which has gained for it the distinctive title of limanda, or file-back—the Latin word *lima* signifying a file. Its flesh is very nutritious, and is said to be in best condition from the end of January to April. It seldom ex-ceeds eight inches in length, though some are stated to be ten inches. are stated to be ten inches.

Dabchick (dab'chik). See Grebe.

Da Capo (da ka'po; Italian, 'from the head or beginning'), in

Da Capo the head or beginning'), in cordant note. music, an expression written at the end of a movement to acquaint the performer that he is to return to the beginning, and end where the word fine is placed. Dacca (dakka), a commissioner's inhabited by the Daci or Getre, after-gal, at the head of the Bay of Bengal; quered by the emperor Trajan in 101 area, 15,000 square miles. It is one of the richest districts in Indis, and Aurelian, had to be abandoned by the produces such quantities of rice as to be called the granary of Bengal. The sur-face is an uninterrupted flat, and is intersected by the Ganges and Brah-studied at Saumur, and in 1672 he wen<sup>2</sup> 22 - 2

22 - 3

D, the fourth letter in our alphabet, representing a dental sound formed by placing the tip of the tongue against the hard-woven mualins, which are still root of the upper teeth, and then forcing hardly to be equaled in their combination of durability and delicacy; but this mouth, the soft painte being raised to branch of industry has considerably deprevent its escape through the nose. T cayed. Pop. 10,807,825, Mohammedans is formed in the same way, except that it is uttered with breath merely and not capital, is about 150 miles northeast of 'alcutta. The city has much decayed with the decrease of its staple trade in the celebrated Dacca musin; suburbs which once extended northwards for 15 miles and flounder, the last two being included in the side which it usually keeps upper most, and white on the underside, and has rougher scales than the other members of the same genus. It is preferred to the family of the same genus. It is preferred to the family of the same genus. It is preferred to the family of the has rougher scales than the other members of the same genus. It is preferred to the family of the family for the same genus. It is preferred to the same genus to the tother members of the same genus. It is preferred to the same genus. It is preferred to the same genus to the same genus. It is preferred to the same genus to the same genus. It is preferred to the same genus to the same genus. It is preferred to the same genus to the same genus. It is preferred to the same genus to the same genus. It is preferred to the same genus to the same genus to the same genus to the same genus to the same genus. It is preferred to the same g



Dace (Louciecus » sigarie).

fish, swimming in shoals and inhabiting chiefly deep, clear streams with a gentle current. It seldom exceeds a pound in weight.

**Dacelo** (da-se<sup>2</sup>/o), an Australian species of which is the 'laughing jackass,' so called on account of its harsh, dis-cordant note.

#### Dacoity

Dacoity
 Intrusted him with the editing of the latin writer Pompeius Festus ad usum batter the properties of the enders of the ende

as kappily. Dactylology (dac-til-ol'o-ji), is the art of communicating ideas or conversing by means of the fingers. It is of great value to the deaf and dumb. See Deay and Dumb. Daddy-long-legs, a name given to crane-fly (Tipūla olcrācia). See Crane-

fly.

hy. **Dado** (då'dô), in classical architecture, that is to say, the solid rectangular part between the plinth and the cornice; also called the *dic*. In the interior of houses it is applied to a skirting of wood several feet high round the lower part of the walls, or an imitation of this by paper or painting. painting.

Dædalus (dö'da-lus), a mythical Greek Dædalus (dé'da-ins), a mythical Greek Ceyiones Fagooa, soulptor, the scene of most application is usually restricted to monu-of whose labors is placed in Crete. He is ments which commemorate some event or raid to have lived three generations before mark some spot sacred to the followers of the Trojan war. He is credited with Buddha. Dagobas are built of brick or building the famous laborinth in Crete, stone, are circular in form, generally with and inventing wings for flight, which a dome-shaped top, and are erected on



#### Ceylonese Dagoba.

ments which commemorate some event or mark some spot sacred to the followers of Buddha. Dagobas are built of brick or stone, are circular in form, generally with

natural or artificial mounds, while the stone or brick structure itself sometimes rises to an immense height. These dagobas have always been held in the highest veneration by the Buddhists, and a common mode of testifying their venera-tion is to walk round them, repeating prayers the while.

prayers the while. **Dagobert I** (dag'o-bert; called the military successes), King of the Franks, in 628 succeeded his father, Clothaire II. After a successful, magnificent, but licentious reign, he died at Epinay in 659.

After a successful, magnificent, but licentious reign, he died at Epinay in 639. Dagon (da'gon; probably from the def the Philistines, whose image is gen-erally believed to have been in the form of a merman, with the upper part human and the extremities, from the waist down-wards, in the shape of the tail of a fish. Daguerre (dä-går), Louis JACQUES French inventor, born at Corneilles, dep. Seine-et-Oise. He was a scene-painter at Paris, and as early as 1814 had his atten-tion directed by Nicéphore Niepce to the subject of photographic pictures on metal. In 1829 they made a formal agreement to work out the invention together, but it was not till after Niepce's death, on July 5, 1833, that Daguerre succeeded in per-fecting the process later called daguerreo-type. (See article following.) Daguerre was made an officer of the Legion of Honor, and an annuity of 6000 frances was settled on him, and one of 40001 on the son of Niepce. Daguerre died in 1851. Daguerreotype (da-ger'ro-tip), the name given to an early photographic process, used espe-cially for portraits. It derived its name from Daguerre (q.v.), the French in-ventor. The process consisted in sensitiz-ing a silver plate with the vapor of iodine and then placing it in a camera previ-ously focused, and afterwards developing the picture by vapor of mercury. It was then fixed by immersion in thiosulphate of sodium. Sensitivity was increased by the addition of bromide to the plate. Daguerreotype was superseded by the col-lodion and other processes (see Photog-raphy). In the familiar tintype, or ferro-type, the print is made on a plate of enameled iron coated with black varnish and then immersed in collodion. The pic-ture is completed quicky. D'Aguesseau. Bagupan (dä-gö-pän'), a town of Luxon Philindines & miles from Lin.

Dagupan (dä-gö-pän'), a town of Pangasinan province. Luzon, Philippines. 8 miles from Lin-rayen, on the Gulf of Lingayen. It is

connected with Manila by railroad. Pop. 21,000.

Dahabeah (då-hå-bë'a), a boat used on the Nile for conveyance of travelers. It varies considerably in long slanting yard on each mast support-ing a triangular sail, and accommodates

ing a triangular sail, and accommodates from two to eight passengers. Dahlgren, JOHN ADOLF, American admiral, born in Phila-delphia in 1809. Died 1870. On his father's side he was of Swedish descent, his father being Swedish consul at Phil-adelphia. In 1826 he entered the navy as midshipman; in 1834 was engaged on the U. S. Coast Survey. In 1847 he was assigned to the ordnance department. In 1850 he invented a howitzer, and in the same year the high-powered shell gun which bears his name. This gun, a cast-iron smooth-bore cannon, was so cast that which bears his name. This gun, a cast-iron smooth-bore cannon, was so cast that the thickness at all points would vary in direct proportion to the varying force be-tween breech and muzzle of the powder discharged at the breech. Dahlgren was also instrumental in securing the adoption of the 11-inch gun for the navy. For dis-tinguished services during the Civil War he was promoted to the rank of rear-admiral. He was chief of the ordnance bureau at the time of his death. His son, ULBIC DAHLGREN (born 1842; died 1864), was a military officer during the Civil War. He lost his life in a raid under-taken for the purpose of releasing national prisoners at Libby Prison and Belle Isle. Dahlia (däl'ya: so called after the Swedish botanist Dahl), a genus of plants belonging to the nat. Swedish botanist Dahl), a genus of plants belonging to the nat. order Composite, suborder Corymbifere, natives of Mexico. By cultivation an im-mense number of varieties has been produced, all deriving their origin from D. juarczii and D. rariabilis. The flow-ers are large and beautiful, sporting into innumerable varieties. It does not stand frost, and has to be taken up during the winter.

the winter. Dahlmann (däl'man). FRIEDRICH CHBISTOPH, a distin-guished historian of Germany, born in 1785; died in 1860. He was professor at Göttingen and afterwards at Bonn, and distinguished himself as an advocate of liberal measures in politics. Among his principal works is a history of the English revolution.

of liberal measures in politics. Among his principal works is a history of the English revolution. Dahn (dän), FELIX, a German histori-an, born at Hamburg, in 1834, and became law professor at Würzburg and at Königsberg. His works include The Kings of the Germans. The Migra-tion of Nations, Ancient History of the Germanic and Romanic Peoples, works on

#### Dahomey

the philosophy of law, poems, novels, nlays, etc. He died in 1912. **Dahomey** (di-ho'me), a former negro kingdom of West Africa with an area of about 58,000 sq. miles and a coast line of 70 miles. It lies between German Togoland on the w. and British possessions on the F. and extends to the Niger River on the N. The Daho-mans are all pagans and the former king was an absolute tyrant, whose army was partly made up of Amazons, while whole-sale human sacrifices formed part of the state ceremonies. The last king, whose capital was Abomey, was deposed by the French in 1900, and the country is now under French rule.

capital was Abomey, was deposed by the French in 1900, and the country is now under French rule. **Daimiel** (di-me-el'), a town of Spain, New Castile, province of Ciudad Real, and 20 miles E. N. E. of the town of Ciudad Real, on left bank of the Azuer. The manufactures are linen and woolen jabrics, etc. Pop. 11,825. **Daimios** (di'mi-ōz), a class of feudal lords formerly existing in Japan, but now deprived of their privileges and jurisdiction. By decree of August, 1871, the daimios were made official governors on a salary for the state in the districts which they had previously held as feudal rulers. **Dairen** (di'ren), or TAIREN, a city and seaport of Manchuria, situated on the Liao-tung Peninsula and on the Ta-lien-wan Bay in the Yellow Sea, 25 miles N. of Port Arthur. This city, originally named Dalny, was built by order of the Czar of Russia, for a commercial scapert, on the concession leased from China in 1898, and was thrown open as a port, free to the com-merce of all nations December 1, 1901. It was divided into administrative, whole-sale, retail and residential sections, the principal official buildings being erected sale, retail and residential sections, the principal official buildings being erected and the streets laid out before opening. tine town, with handsome buildings and A fine town, with handsome buildings and all modern improvements, soon sprang up. The harbor, one of the best and deepest of the Pacific, free of ice the year round, was provided with breakwaters great stone piers and large docks, including two dry docks. The town formed one of the eastern termini of the Trans-Siberian Railway, and was provided with elevators, gas and electric lighting, etc. The city was occupied by Japanese troops in 1904, during the Russo-Japanese war, and re-named it Dairen, and it is now a place of much commercial importance. Pop. about 500000. 50,000

**Dairy** (da'ri), the department of a better which is concerned with the production of milk. After determine

ing on the farm, which should be carefully chosen for location, fertility, abundant water supply, etc., the selection of the cows for the dairy herd is the considera-



Ayrshire and shorthorn. The beaviest milk vielders, as a general rule, are the Holstein, but their milk is lower in percentage of butter-fat than that of the other breeds mentioned. The cow stable should be planned so that the work of caring for the herd can be conducted with all possible economy of time and labor. Overhead mechanical devices should be installed where prac-ticable, to facilitate handling and dis-tributing the folder and the removal of the manure. Sanitary principles of con-struction in the building should be given careful attention. An abundance of light and air is a primal requisite. The floor should be of concrete, both by reason of its durability and the ense and thorough-ness with which it can be cleaned. The milk should be produced and han-died under conditions of the utmost clean-liness. The stables should be kept thor-oughly clean, and the milk, after being drawn from the stable in which the milk-ng is done to a separate room or building where it should be strained and cooled. Various devices for cooling and aerating milk have been invented. One of the most commonly used is shown in the ac-companying illustration. Mide duder should be brushed and wiped off just before milking. If the milking is done by hand, the milker should where task han milking, and when outer gaments which should not be worn and the udders should be brushed and wiped off just before milking. If the milking is done by hand, the milker should should wash his hands and wear clean outer gaments which should not be worn at any other task than milking, and when outer gaments which should not be worn at any other task than milking, and when outer gaments which should not be worn at any other task than milking, and when outer gaments which should not be worn at any other task than milking, and when outer gaments which should not be worn at any other task than milking, and when outer gaments which should not be worn at any other task than milking is done by hand, the milker should be done with dry handy.

tion next in im-

portance. The breeds mainly selected in the United States for their milk and butter-fat

producing qual-ities are the Guernsey, Jer-

Guernsey, Jer sey, Holstein sey, Holstein. Ayrshire and shorthorn. The

heaviest milk

The number of dairy cows in the United States in 1900 was 16,292,000; price per head, \$21.60; farm value, \$514.812,000. In 1920 the number had grown to 23,747. OO0; price per head, \$50.18; farm value, \$2,021,681,000. Canada has about 3,500. \$2,021,681,000. Canada has about 3,500. Course works, etc., and in the neighborhood granite quarries. Pop-reality (2) northern Italy; (3) northern Illinois, S. Wisconsin, central New York, N. W. Vermont; (4) the St. Lawrence lowlands and the peninsula of Ontario. Dais at the upper end of an ancient dining-hall, where the high table stood; also a seat with a high wainscot back, and sometimes with a canopy, for those who sat at the high table. The word is also sometimes applied to the high table. The word

itself.

**Daisy** (da'si), the name of a plant which is very familiar, and a great favorite (Bellis perennis). In the days of chivalry it was the emblem of fidelity in love. Its name is literally day's eye, because it opens and closes its flower with the daylight. It has been naturalized in parts of New Eng-land. The common daisy of the United States, the big or ox-eye daisy, also an introduced plant, is properly an aster. **Thab** Dawk (dak), in the East Indies.

an introduced plant, is properly an aster. **Dåk**, DAWK (dak), in the East Indies. the post; a relay of men, as for carrying letters, despatches, etc., or travelers in palanquins. The route is divided into stages, and each bearer, or set of bearers, serves only for a single stage. A dik-bungalow is a house at the end of a stage designed for those who journey by palanquin. **Dakar** (dä-kär'), a fort, naval station and seaport in the French West-African colony of Senegal; capital of the settlement and since 1904 the seat of gov-ernment. Pop. (1910) 24,800. **Daker-hen** (dä'ker-hen), a name

Daker-hen (dā'ker-hen), cn (dā'ker-hen), a name sometimes given to the or landrail, a bird of the corn-crake or family Rallidæ.

Dakoity (da-koi'ti). See Dacoity.

**Dakota Formation**, a group of rocks belong-ing to the cretaceous strata and outcrop-ping along the western border of the great plains from Texas to Alberta. West of the Rocky Mountains the Dakota rocks include workable strata of coal or lignite. In a great portion of the Rocky Moun-tain system the Dakota rests upon Lower Cretaceous, and sometimes Jurassic, strata. strata.

Dakots Indians

the neighborhood granite quarries. Pop. 34(8). Dalbergia (dal-ber'gi-a), a genus of fine tropical forest trees and climbing shrubs, nat. order Legu-minose, some species of which yield excel-lent timber. D. latifolia (the blackwood, or East Indian rosewood) is a magnificent tree, furnishing one of the most valuable furniture woods. D. Sissoo gives a hard, durable wood, called sissoo, much em-ployed in India for railway-sleepers, house and shipbuilding, etc. Dale, RICHARD, an American naval officer, born at Norfolk, Virginia, in 1756. He was first officer under l'aul Jones on the Bon Homme Richard, helped materially towards the victory, and was the first man to board the Scrapis when captured. He was after-wards put in command of an American squadron, the President being his flag-ship. Died in 1820.

ship. Died in 1820. Dalecarlia (dal-e-kár'li-a), or DAL-ARNE, a tract in Sweden. The name, meaning 'valley-land,' is kept alive in the minds of the inhabitants by the noble struggles which the Dalecar-lians, its inhabitants, made to establish and maintain the independence of the country. country.

Dalgarno (dal-gar'nö), GEOBOE, born at Aberdeen about 1627, took up his residence at Oxford, where he taught a private grammar school for about thirty years, and where he died in 1687. He was a man of great originality and acquirement, and has left behind him two remarkeble works. Signorum. an

a bird of the analysis of the and acquirement, and has left behind him work and acquirement, and has left behind him work was an an of great originality egal; capital of the and acquirement, and has left behind him works, Signorum, an 24,800.
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#### Dalmatia



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### Dall



merous islands sprinkled along the coast many are valuable for their productions, such as timber, wine, oil, cheese, honey, salt and asphalt. The population is divided between the Italians of the coast iowns and the peasants of the interior, Biovenian Slavs speaking a dialect of the Biavonic. The majority are Roman Catholics. It came under Austrian rule in 1814. Following the defeat of Austria in 1918 in the European war (q. v.) Dal-matia was removed from Austrian control by the treaty of 1919. Pop. 645,666. Dalmatian Dog, a variety of dog Danish, spotted, or coach-dog. See Coach-

Danish, spotted, or coach-dog. See Coachdog.



Dalmatic (dal-mat'ik), or DALMAT-ICA, an ecclesiastical vest-ment worn by the deacon at mass, so called because it was an imitation of Dalan imitation of a matian costume. It also by matian costume is worn also bishops under t chasuble. It is a chasuble. It is a long robe with large, full sieeves with thack or red longi-thes and tudinal stripes and partially unclosed sides. A similar robe was worn by kings and emperors Dalmatica, Cathe-dral of Chartres (twelfth century). Dalriade (d-)

of the Court of Session. His publica-tions were numerous, but consist prin-cipally of new editions and translations. Of his original production the Annels of Scotland from Malcolm Canmors to the Accession of the House of Stuart, is the most important. He died in 1792.

is the most important. He died in 1702. Dalrymple, JAMES, first Viscount To2. Dalrymple, Stair, a Scottish lawyer and statesman, was born in 1619. In the English ('ivil war he sided with the l'arliament, but afterwards joined the royalists: was made a knight on the Restoration, and in 1671 president of the Court of Session. In 1082 he fell out of favor with the king, and retiring to Holland became an adherent of the Prince of Orange, who, after the revolu-tion, raised him to the peerage. He died in 1085. The connection of his son, the Master of Stair, with the massacre of Glencoe brought some odium upon him in his last years. He wrote: The In-stitutes of the Laws of Kcolland (which is still a standard authority). Vindica-tion of the Divine Perfections and An Apology for his Orn Conduct. Dalrymple, JOHN, first Earl of Scottish lawyer and stateman. It was through him that the massacre of Glen-coe was perpetuated in 1682. He suc-ceeded his father as vincount in 1685, and in 1703 was created earl. He was largely instrumental in bringing about the union between Scotland and Eng-land. Dal Segno (sen'yō: Italian), often contracted in to D.S..

be worn by the sov-ereigns of England Dalmatica, Cathe-dral of Chartres (twelfth century). Dalny. See Dai-dral of Chartres (twelfth century). Dalny. See Dai-mame of a territory in Antrim, called after Carbry Riada, one of its chiefs. In the sixth century a band of Irish from this quarter settled in Argyleshire under Fergus MacErc, and founded the kingdom of the Scots of Dalriada. After being almost extin-uid, seizing the Pictish throne, gave kings to the whole of Scotland. Dalry (dal-rë), a town of Scotland. Dalry (dal-rë). Dalry (dal-rë), a town of Scotland, Dalry county of Ayr, on the Garnock, 1 op, 5316. Dalrymple (dal-rim'pl), Sir DAvin-works and woolen and worsted mills, 1 op, 5316. Dalrymple (dal-rim'pl), Sir Davin-don, and visited Paris. In 1908 he an-nounced in his New System of Chemical Action, the discorery of which spread his fame over the world. He died in 1844. Dalton, Georgia, 100 miles N.w. of Atlanta. It has cotton mills, foundries, the bar, and in 1766 was made a judge



Dalton-in-Furness, a town of Eng-county of Lancaster. In its vicinity are extensive ironworks, and the ruins of the magnificent Cistercian abbey of Fur-ness. Pop. (1911) 10,765. Daltonism, another name for Color-blindness, which see. Dalton's Law Son Gas

Dalton's Law. See Gas.

Dalton's Law. See and Daly (dā'li), AUGUSTIN, dramatist born at Plymouth, North Caro-iina, in 1838; died in 1849. He became a very successful theatrical manager, new blished Daly's Theater, New a very successed and established Daly's Theater, New York, in 1879. He served as a dramatic critic, adapted French and German plays, and wrote Under the Gaslight, Divorce, Pique, etc.

Pique, etc. **Daly,** CHARLES FRANCIS, jurist, born 1899. He was admitted to the bar in 1837, became judge of the New York Court of Common Pleas in 1844, and was president of the American Geographical Society from its origin in 1864, and wrote on the history of map making and physical geography, etc. **Dalyell**, or DALZELL (dā-cl'), THOMAS. 1509. He was taken prisoner fighting

1500. He was taken prisoner fighting on the royalist side at Worcester, and afterwards escaped to Russia, where he was made a general. Returning to Eng-land at the restoration, he was made commander-in-chief of the forces in Scot-land, and made himself notorious for his ferocity against the Covenanters. He died in 1685.

**Dam**, a bank or construction of stone, earth, or wood across a stream for the purpose of keeping back the cur-rent to give it increased head, for holding back supplies of water, for flooding lands, or for rendering the stream above the dam navigable by increased depth. Its material and construction will depend on material and construction will depend on its situation and the amount of pressure it has to bear. For streams which are broad and deep strong materials are re-ourd, usually stone masonry bound in Portland cement. There are also dams of earth, reinforced concrete, etc. The com-Portland cement. There are also dams of about 100,000 sq. miles, including a large amount of barren lands. mon torms of a dam are either a straight line crossing the stream transversely, one or two straight lines traversing it diagonally, or an are with its convex side towards the current. Among the high mascening dams of the U. S. are the Arrow. John of Damascus, rock Dam, Idaho, 350 feet: Shoshone, afterwards called also John Chrysorrhose Wyoming, 328 feet: Elephant Butte, New Mexico, 318 feet; Roosevelt, Arizona, mascus about 676 A.D.; died about 760. 254 teet; Pathfinder, Wyoming, 218 feet. He was the author of the first system

Damage-feasant (dam-aj-fé'a-sant), in law. doing in-jury; trespassing, as cattle; applied to a stranger's beasts found in another per-son's ground, and there doing damage. Damages (dam'a-jes), in law, pe-cuniary compensation paid to a person for loss or injury sustained by him through the fault of another. It is not necessary that the act should have been a fraudulent one; it is enough that it be illegal, unwarrantable, or malicious. If, however, a person has suffered a loss through fraud or delict on the part of another, that person has not only a claim to ordinary damages, but may also claim remote or consequential damages, and may estimate the amount of the loss he has sustained not at its real value, but at the imaginary value which he himself may put upon it, sub-ject, however, to the modification of a judge or a jury. In other cases the dam ages cover only the loss sustained esti mated at its real value, together with the expenses incurred in obtaining damages. Daman, See Hyraz. Daman. See Hyrax.

Daman. See Hyraz. Daman (d a-m ii n'), a seaport of Hindustan, at the mouth of the (Julf of Cambay, 100 miles north from Boubay. It belongs to the Por-tuguese, who conquered it in 1531, and made it a permanent settlement in 1558. It formerly had a large trade, but this has much declined. The settlement, which is governed under Goa, has an area of 148 sq. miles; pop. 64,248. Damanhoor (d4-man-b5r'), a town of Egypt, capital of the province of Behera, 38 miles L S. E. of Alexandria. It has manufactures of cotton and wool. Pop. 38.752. Damar (d4-mär'), or DENAR', a town of Yemen. Arabia, 120 miles north by west of Aden. Pop. about 20,000. Damar. See Dammar.

Damar. See Dammar.

Damaraland (dam'a-ra-land), a German protectorate in South Africa. extending along the Atlantic coast from Cape Frio to Walfisch Bay, and inland to 20° E. long. Area about 100,000 sq. miles, including a large

#### Damascus

### Damask

of Christian theology in the Eastern Church, or the founder of scientific dogmatics, and his exposition of the orthodox faith enjoyed in the Greek Church a great reputation. **Damascus** (da-mas'kus), a celebrated city, formerly capital, pres-ent chief town of Syria, supposed to be the most ancient city in the world. It is beau-tifully situated on a plain which is covered with gardens and orchards and watered by the Barrada. The appearance of the city, as it first opens on the view, has been rapturously spoken of by all

portant and busiest streets is 'Straight Street,' mentioned in connection with the conversion of the Apostle Paul. Da-mascus is an important emporium of trade in European manufactures; it is also a place of considerable manufactur-ing industry in silk, damasks, cotton and other fabrics, tobacco, glass, soap, etc. Saddles, fine cabinet-work and elegant jewelry are well made; but the manu-facture of the famous Damascus blades no longer exists. One of the holy Moslem cities, it continues to be the most thoroughly oriental in all its features of



travelers; but the streets are narrow, crooked, and in parts dilapidated, and, except in the wealthy Moslem quarter, the houses are low, with flat-arched doors and accumulations of filth before the entrance. Within, however, there is often a singular contrast, in courts paved with marble and ornamented with trees and spouting fountains, the rooms adorned with arabesques and filled with splendid furniture. Among the chief buildings are the Great Mosque and the Citadel. The bazaars are a notable feature of Da-mascus. They are simply streets or lanes covered in with high woodwork and lined with shops, stalls, cafés, etc. In the midst of the bazaars stands the Great Khan, it and thirty inferior khans being used as exchanges or marketplaces travelers ; hut the street are narrow. being used as exchanges or marketplaces by the merchants. One of the most im-

any city in existence. Of its origin noth-ing certain is known; but it is of great antiquity, being mentioned as a place ap-parently of importance in Gen. xiv, 15. From 1516 till 1918 it was in the hands of the Turks. The British took the city, October 1, 1918, near the close of the European war (q. v.). Pop. 300,000. **Damascus-steel**, a kind of steel originally made in Damascus and the East, greatly valued in the making of swords for its hardness of edge and flexibility. It is a laminated metal of pure iron and steel of peculiar quality, carbon being present in excess of ordinary proportions, produced by careful heating, laborious forging, doubling and twisting. twisting.

Damask (dam'ask), the name given to textile fabrics of various

#### Damaskeening

materials, ornamented with raised figures of flowers, landscapes, and other forms, being the richest species of ornamental weaving, tapestry excepted. Damask is commonly made in linen for table napery.

**Damaskeening** (d a m-a s-kēn' ing), the ornamenting of iron and steel with designs produced by inlaying or incrusting with another metal, as gold, silver, etc., by etching, and the like like.

like. **Damasus** (dam'a-sus), the name of a pope born about 305, reigned 363-384. He was a friend of St. Jerome, whom he led to undertake the improved Latin version of the Bible known as the Vulgate. **Dambool** (dam-b öl'), a village of of Colombo, at which is a rock containing a number of caves, in one of which is a colossal statue of Buddha hewn out of the rock. the rock.

of the **Revolution**, Dames an American society founded in 1896, its an American society founded in 1800, 18 membership being confined to women of direct descent from an ancestor who as-sisted in establishing the independence of the United States during the Revolu-tionary war.

and the sense of merian in 1830. Admitted to help of the making variants and helper. Leprosy attacked in the same of the maxime to assassing the sense to have become dissorted to save hered to be antice and belper. Settlement of the Hawaiian 1887. And helper. Leprosy attacked in the same of Kohert-te-Diale. After settling as a soldier he became a house setublishments in the village of Tienlloy. His somber in the village of the notices the heaving to be antice the setublishments in the village of the notices the sought in the same of Kohert-te-Diale. After setuating as a soldier he became a house setublishments in the village of the nothes the disposition early obtained him the name of Kohert-te-Diale. After setuating as a soldier he became a house setual is and the setuate to save become discussion of a poor farmer, and born in 1715. After speeding some months in different the same of Kohert-te-Diale. After speeding some months in different the length 3500 miles.

XV was getting into his carriage to return from Versailles to Trianon, he was stabled by Damiens in the right side. The wound was of a triffing nature, and The wound was of a triffing nature, and Damiens, who made no attempt to escape, declared he never intended to kill the king. Damiens was condemned and torn in quarters by horses March 28, 1757, on the Place de Grève at Paris. **Damietta** (da-mi-et'a), a town of Egypt, on one of the prin-ciple branches of the Nile, about 6 miles from its mouth. It contains some fine mosques, bazaars and marble batks. Alexandria has long diverted the great

from its mouth. It contains some fine mosques, bazaars and marble baths. Alexandria has long diverted the great stream of commerce from Damietta, but the latter has still a considerable trade with the interior in fish and rice. The ancient town of Damietta stood about 5 miles nearer the sea. Pop. (1907) 29.354. **Dammar** (d a m' a r; or DAM'MARA) PINE, a genus of trees of the nat, order Conferæ, distinguished by their large, lanceolated, leathery leaves, and by their seeds having a wing on one side instead of proceeding from the end. The Dammara orientalis is a lofty tree of the East India Archipelago, at-taining on some of the Molucca Islands a height of from 80 to 100 feet. It yields one variety of dammar resin. The Kauri pine, or Dammara australis, found in the North Island of New Zealand, is a magnificent tree, rising to a height of 150 to 160 feet, and yielding kauri gum. See Kauri. **Dammar Resin**, a gum or resin of

# Damon and Pythias

pened to look upwards, and perceived with dismay a naked sword suspended over his head by a single hair, and was thus taught to form a better estimate of royal honors.

royal honors. Damon and Pythias (da'mun, pi'-the-as), two illustrious Syracusans, celebrated as mod-els of constant friendship. Pythias had been unjustly condemned to death by Monysius the Younger, tyrant of Sicily; but, having to leave Syracuse to arrange his affairs, his friend Damon was taken as a pledge that Pythias should return on the day fixed. Pythias, however, being unexpectedly detained, had great difficulty in reaching Syracuse in time to save Damon being executed in his place; and Dionysius was so affected by this proof of their friendship that he pardoned l'ythias. The Knights of Pythias, a fraternal

Tytnias. The Knights of Pythias, a fraternal order established in the United States, has this pleasant incident for its basis. Its growth has been remarkably rapid, and lodges are in existence in every state of the Union. See Knights of Buthics Pythias.

state of the Union. See Knights of Pythias. Dampier (dam'pi-er), WILLIAM, an English navigator, born in 1652. He was descended from a good family in Somersetshire; but losing his father when young, he was sent to sea, and soon distinguished himself as an able mariner. After serving in the Dutch war, in the Bay of Campeachy as a log-wood-cutter, in a band of privateers on the Peruvian coasts, in a Virginian ex-pedition against the Spanish settlements in the South Seas, and other enterprises of a similar nature, he returned home in 1691. In 1697 he published Voyage Round the World, which became very popular, and next year he was appointed commander of a royal sloop-of-war, fitted out for a voyage of discovery in the Australian seas. The vessel, on the home voyage (1700), foundered off the isle of Ascension, and Dampier returned to Eng-land. In 1707 he accompanied Captain Woodes Rogers around the world. He died in 1715. died in 1715.

died in 1715. Damps, noxious exhalations issuing or fatal to animal life. Damps exist in wells which continue long covered and not used, and in mines and coal-pits; and sometimes they issue from the old lavas of volcanoes. These damps are distin-guished by miners under the names of choke-damp, consisting chiefly of carbonic acid gas, which instantly sufficients; and free-damp, consisting chiefly of light car-buretted hydrogen, so called from its ten-dency to explode. dency to explode.

Damrosch (dam'rosh), FRANK HEINO (1859-), an American

Damrosch (dam'rosh), FRANK HEINO (1869-), an Americau musical director, son of Leopold Damrosch (q.v.), born at Breslau, Prussia. He established the People's Choral Union, New York, 1892; was director of Oratorio Society and Symphony Concerts for Young People, 1898-1912; director of In-stitute of Musical Art from 1905. Damrosch, LEOPOLD (1832-85), an ductor and composer, born at Posen. Prussia. In 1871 he became conductor of the Arion Society, New York. In 1873 he organized the Oratorio Society, and in 1878 the Symphony Society of New York. In 1884 he was director of the Metro-politan Opera House, New York. Damrosch, WALTES (1862-), an ductor and composer, son of former, born at Breslau, Prussia. In 1885 he succeeded his father as conductor of the Oratorio and Symphony Societies. Ha recommended

his father as conductor of the Oratorio and Symphony Societies. He reorganized the Symphony Society in 1903 and made it one of the most famous orchestras in America. He wrote two operas, The Scarlet Letter and Cyrano, and a number of const of songs.

America. The wrote two operas, The Scorlet Letter and Cyrano, and a number of songs. Damson (dam'sen), a variety of the domestica). The fruit is rather small and oval, and its numerous subvarieties are of different colors; black, bluish, dark purple, yellow, etc. The damson (corruption of Damascene), as its name imparts, is from Damascus. Dan (Hebrew, meaning 'judgment'). Dan one of the sons of Jacob by his concubine Bilbah. At the time of the exodus the Danites numbered 62,700 adult males, being then the second tribe in point of numbers. Samson was a member of this tribe. Dana (da'na), CHARLES ANDERSON. New Hampshire, in 1819. After associa-tion with the New York Tribuse for 14 years as one of the proprietors and man-aging editor, in 1863 he was appointed Assistant Secretary of War. After 1868 he was the editor of the New York Nsw. Perhaps more than any other journalist his personality was identified with his newspaper. He died in 1807. Dana, Cambridge, Massachusetts, in 1743; died in 1811. He became an able lawyer, joined the 'Sons of Liberty,' and was active in the measures leading to the Revolution. He was a prominent leader in State and national councils during the was observed in 1765 and was achuset in 1743, was pudge of the Supreme Court of Massachusetts in 1755 and was achuset in 1741, was judge of the Supreme Court of

war, was sent to Russia as minister in 1781, was judge of the Supreme Court of Massachusetts in 1785, and was chosen

#### Dana

of 1787, but ill health prevented his serv-ing. Dana, naturalist, born in 1813, and after 1855 a professor at Yale College. His writings include System of Mineral-ogy, Manual of Mineralogy, Coral Reefs and Islands, Manual of Geology. Text-book of Geology, and many reports and papers. He died in 1855. Dana, RICHARD HENRY, an American Dridge in Massachusetts: educated at Harvard; published several collections of poems and two novels. He died in 1879. —His son RICHARD HENRY (born in 1815; died in 1882) was the author of the well-known work Two Years before the Mast, the result of his own experi-ences during a voyage recommended to him on account of his health. Danae (dan'ā-ē), in Greek mythology, daughter of Aeristus, king of Argos. She was shut up by her father in a brazen tower, but Zeus, inflamed with passion for her, transformed him-self into a golden shower, and descended through the apertures of the roof into hey embraces. Set adrift on the waves by her father, she reached safely one of the Cyclades, where her child, Perseus, was brought up. Danaides (da - nā'i - dēz), the fifty

the Cyclades, w was brought up.

by her father, she reached shirts one of erminy an expression of all shorts as in the case of the dance of David before the ark, the chorie dances, or the Pyrrhic dance of the dance of David before the ark, the chorie dances, or the Pyrrhic dance of the dance of David before the ark, the chorie dances, or the Pyrrhic dance of the dance of David before the ark, the chorie dances, or the Pyrrhic dance of the dance of David before the ark, the chorie dances, or the Pyrrhic dance of the dance of David before the ark, the chorie dances, or the Pyrrhic dance of the dance of David before the ark, the chorie dances, or the Pyrrhic dance of the dance of the dance of David before the ark, the chorie dances, or the Pyrrhic dance of the dance of David before the ark, the chorie dances, or the Pyrrhic dance of the dance of David before the mission of the festival of the Danaides, as a punishment for their water into a vessel full of holes. Danbury the capitals of Fairfield Co. Connectient, 65 miles N. N. E. of New York. It has many large hat factories, underwart and machine shore, etc. Pop. (1910) 23,502; (1920) 22,325. Danbury Hatters' Case, e as e in the inder shore, etc. Pop. (1910) 23,502; (1920) 22,325. Danbury Hatters' Case, e as e in the history of capital and haber. After strasburg and disorder. At the bestory of capital and haber. After strasburg and disorder. At the bestory of capital and haber. After strasburg and disorder. At the bestory of capital and haber. After strasburg and disorder. At the bestory of capital and haber. After strasburg and the seveneenthe contexponent on January 5, 1015, when the United States Supreme Court unanimously af-

a member of the constitutional convention of 1787, but ill health prevented his serv-ing. Dana, JAMES DWIGHT, an American a nation-wide boycott declared by the after 1855 a professor at Yale College. Illis writings include System of Mineral-ogy, Manual of Mineralogy, Coral Rects and Islands, Manual of Geology. Text-took of Geology, and many reports and papers. He died in 1895. Dana, RtcHARD HENNY, an American bridge in Massachusetts; educated at Harvard; published several collections of celebrated are the Opening of the Sixth poems and two novels. He died in 1879. Massachusetts; educated at Harvard; published several collections of the well-known work Two Years befor the Well-known work Two Years befor the Mast, the result of his own experi-ences during a voyage recommended to him on account of his health. Danae (dan'ū-č), in Greek mythology, Argos. She was shut up by her father in a brazen tower, but Zeus, inflamed

1861. Dance of Death. See Death, Dance of. Dancing (dans'ing), a studied and hythmical movement of the limbs generally adjusted to the measure of a tune. In ancient times it was gen-erally an expression of religious, patriotic, or military feeling, as in the case of the dance of David before the ark, the choric dances, or the Pyrrhic dance of the Girecks. The Romans, however, like the oientals, had their dancing done by hired slaves. This solenn character of the dance has declined with the progress of refinement and an agreeable spectacle at public entertainments. Dancing Disease, an epidemic nerv-



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# **Dandie Dinmont Terrier**

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radical, and runcinate or jagged on the margin. From this circumstance has been derived its French name dent de lion (lion's tooth), of which the English ap-pellation is a corruption. The stems are hollow and have one large bright-yellow flower and a tapering, milky, perennial root, which acts as an aperient and tonic, and is much esteemed in affections of the liver. The whole plant is full of a milky and bitter juice. (See Tarazacin.) The seed of the plant is furnished with a white pappus, and is transported far and wide by the wind. Dandie Dimmont Terrier. <sup>a</sup> P<sup>e-</sup>

King of the Janes, after the battle of while pappos, and is transported far and while by the wind.
Dandie Dinmont Terrier, or particular the battle of the Janes, after the battle of the battle paper, and is transported far and the battle of the Janes. This name is retained till be been and of by English hister. (Danes' the battle of the South territer, so called fram the battle of the South territer, so called fram the battle of the South territer, so called fram the battle of the South territer, so called fram the battle of the South territer, so called fram the battle of the South territer, so called fram the battle of the South territer, so called fram the battle of the South territer of the mane, and of the South territer of the souther of the battle. The souther of the souther territer of the teriter of the territer of the territer of the territer of the terr

and ultimately seven, for every hide of land, except such as belonged to the church. When the Danes became masters of England the *danogelt* was a tax levied by the Danish princes on every hide of land owned by the Anglo-Saxons. **Danelagh**, DANELAW (din'lg), the of territory extending along the east io ast of England from the Thames to

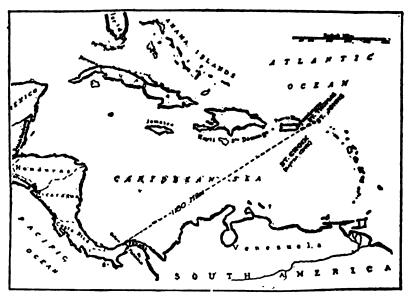
**Danelagh**, DANELAW (din'lg), the of territory extending along the east coast of England from the Thames to the Tweed, ceded by Alfred to Guthrun. King of the Danes, after the battle of Ethandune. This name it retained till the Norman conquest, its inhabitants be-ing governed by a modification of Danish law and not by English law. **Danewerk** (da'ne-verk; Ger. 'Danes' work'; Danish. Danne-rirke), an ancient wall of alout from 30 to 40 feet high and of an equal thickness extending along the southern frontier of Schleswig for nearly 10 miles, from the North Sea to the Baltic. It was con-structed in the middle of the tenth cen-tury and repaired in 1850, but was cap-tured by the Austrians and Prussians in the Schleswig-Holstein war of 1864 and soon after destroyed.

Daniell

# **Daniell's Battery**

commenced the Quarterly Journal of rod immersed in a solution of dilute sul-Science and Art in concert with Mr. phuric acid, or sinc sulphate solution, and Brande. In 1820 he published an account separated by a porous pot of unglased Brande. In 1820 he published an account of a new hygrometer which he had in-vented. Soon afterwards his valuable works, Mctcorological Essays and the essay on Artificial Climate, appeared. In 1831 he was appointed professor of chemistry in King's College, London, and made further important discoveries, chief among which is his apparatus for main-

phuric acid, or sinc sulphate solution, and separated by a porcus pot of unglazed earthenware from a copper plate dipping into a solution of copper sulphate. The chemical reaction consists practically in the replacement of copper by sinc in the solution. Though the E. M. F. of the Daniell cell is only 1.08 volts, it is more constant than that of any other cell in common use.



Map Showing the Virgin Islands (formerly Danish West Indies).

taining a powerful and continuous cur-rent of electricity in galvanic batteries (see following article). For these dis-

Daniels, JOSEPHUS, American editor and public official. He was born in Washington, N. C., in 1862, and received an academic education. At the the was made a D.C.L. of Oxford in He was a member of the Democratic 1843, and died in 1845. Daniell's Battery, an electric cell Carolina for many years, and a member Daniell's Battery, an electric cell Carolina for many years, and a member F. Daniell in 1836. In its present form which carried on the campaign for the it is a two-fluid cell in which depolariza-tion is effected by electro-chemical means. son, in whose cabinet he became Secretary The essential parts of the cell are a sinc of the Navy.



# **Danish West Indies**

Danish West Indies, the former title of three islands in the Virgin Island group of the West Indies, now part of the outlying possessions of the United States, which purchased them in 1917 for \$25,000,000. This country had more than once sought to acquire them, and at one time could have done so for \$5,000,000. What gives them their present increased value is the fact that they lie on one of the chief routes of travel between Europe and the ract that they lie on one of the chief routes of travel between Europe and the Panama Canal, and possess an excellent harbor, that of Charlotte Amalie. The fear was entertained that Germany or some other European power might gain possession of these islands, a possibility likely to prove to the disadvantage of the United States.

possession of these islands, a possibility likely to prove to the disadvantage of the United States. These islands are known as Santa ('rus (Sainte ('roix'), Saint Thomas, and Saint John, their total area being 138 square miles and their combined popula-tion 32,780, chiefly divided between the first two named. These people are mostly negroes and the product of the island mainly sugar-cane and rum. Tobacco and cotton are also grown. These islands were discovered by ('olumbus, and have been successively held by Holland, Eng-land, Spain, France and Denmark, their first ownership being that of the United States. Their value, as stated, lies in the port of Charlotte Amalie, which is a coaling and cable station and has facili-ties for ship repairing. In the hands of the United States it is likely to develou into a port of active business. See Saint Thomas and Charlotte Amalie. Danites (dàn'itz), a former secret so-ciety of the Mormon Church for militant action against its enemies. It was organized by Joseph Smith at Kirtland, Ohio, in 1836, by a 'covenant' to avenge any further expulsion of the Missouri Mormons by mobs. The name finally chosen by the society was Sons of Dan, turned by outsiders into Danites. It is usually charged with all the deeds of blood laid at the door of the Mormons, including the Mountain Meadows mas-sacre. The Mormons have denied that the society had any existence, or if it had that it was in no way connected with the Mormon ('hurch or was countenanced by it. The name was also given by the Douglas Democrats to the Buchanan Democrats in unbalding the Utah rebellion. were discovered by Columbus, and have been successively held by Holland, Eng-land, Spain, France and Denmark, their first ownership being that of the United States. Their value, as stated, lies in the port of Charlotte Amalie, which is a coaling and cable station and has facili-ties for ship repairing. In the hands of the United States it is likely to develow into a port of active business. See Seins *Thomas* and *Charlotte Amalie*. **Danites** (dan'itz), a former secret so-for militant action against its enemies. It was organized by Joseph Smith at Kirtland, Ohio, in 1833, by a 'covenant' to avenge anv further expulsion of the Missouri Mormons by mobs. The name finally chosen by the society was Sons of Dan, turned by outsiders into Danites the society had any existence, or if it had that it was in no way connected with the Douglas Democrats to the Buchanan's tools in upholding the Utah rebellion. **Dankali**, or DANA'KII (the tormer **Dankali**, or

number of rude tribes that inhabit Africa, east of Abyesinia, between it and the Red Sea. They are of the Mohammedan religion. Number about 70,000. Dannecker (dan'ek-er), JOHANN HEINNICH, a German sculptor, born in 1758; died in 1841. As a student at the Karlschule he distin-guished himself; was appointed court sculptor, and visited Paris and Rome. In 1790 he returned to Würtemberg, and became professor of the fine arts at Stuttgart. His best works are his statue of Christ and his Arisdne Seated on a Pastker. Panther.

Pastaer. Dannemora (da-ne-mô'ra), a village on a lake of the same name, 24 miles N. N. E. of Upsala, in Sweden, celebrated for its iron-mines, the second richest in Sweden, which have been worked uninterruptedly for upwards of thme contunies

D'Annunzio (dän-nun'dsē-ö), GA-BIELE, an Italian poot, novelist, dramatist and soldier (1864-), born at Francavilla. Among his bestnovelist, dramatist and soldier (1864-), born at Francavilla. Among his best-known plays are La Citta Morta, La Gioconda, and Francesca da Rimini. His novels include Il Fuoco, and other Ro-mances of the Pomegranate. He played a hero's part in the European war. Among bis most acular avaloir was

Dante.

Commedia, in terms which make it hard to distinguish the real personality of Beatrice from some ideal power of beauty and virtue of which she is to Dante the symbol. Their actual lives at least went far enough apart, Beatrice marrying a noble Florentine, Simone Bardi, in 1287. and dying three years afterwards; while the year following Dante married Gemma doi Donati, by whom he had four chil-den. At this time the Guellic party



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#### Danton

the water and the land, De Aqua et Terrs. Danton (däp-töp), GEORGE JACQUES, an advocate by profession, and one of the great figures in the French Revolution, born in 1759. His colossal stature, athletic frame, and powerful voice contributed not a little, together with his intellectual gifts and audacity, to win him a prominent position among the revolu-tionaries. He founded the club of the Cordeliers, was foremost in organizing and conducting the attack on the Tuileries, August 10, 1792, and as a reward for such services was made minister of justice and a member of the provisional executive council. When the advance of the Prus-sian army spread consternation among the members of the government Danton alone preserved his courage, and in a celebrated speech summoned all Frenchmen capable of bearing arms to march against the enemy. He voted for the capital punish-ment of all returning aristocrats, but un-dertook the defense of religious worship, and, along with Robespierre, brought Hébert and the worshipers of the goddess Reason to the scaffold. But the rivalry of the two great leaders had now reached a point when one must succumb, and the Reason to the scaffold. But the rivalry of the two great leaders had now reached of the two great leaders had now reached a point when one must succumb, and the crafty Robespierre succeeded in having Danton denounced and thrown into prison, March 31, 1794. Five days afterwards he was condemned by the revolutionary tri-bunal as an accomplice in a conspiracy for the restoration of monarchy, and executed the neuron day. the same day.

**Dantzig** or DANZIG (dán'zeh), a free port within the Polish cus-toms frontier, formerly capital of the province of West Prussia, 253 miles N. E. of Berlin, on the left bank of the west arm



of the Vistula, about three miles above its mouth in the Baltie, and intersected by the Mottlau, which here divides into sev-eral branches. The more modern parts of 23-3

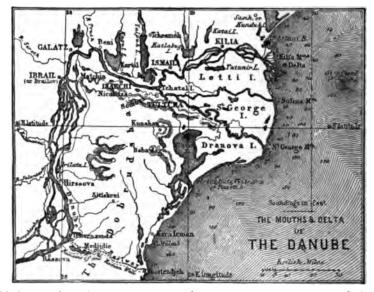
Danube

the water and the land, De Aqua et Terra. Danton (däp-töp), GEORGE JACQUES, and one of the great figures in the French Revolution, born in 1759. His colossal stature, athletic frame, and powerful voice contributed not a little, together with his intellectual gifts and audacity, to win him a prominent position among the revolu-tionaries. He founded the club of the Cordeliers, was foremost in organizing August 10, 1792, and na reward for such and conducting the attack on the Tuileries, wheat from Poland. Till the disastrous August 10, 1792, and na reward for such a prominent position among the revolu-tionaries. He founded the club of the corducting the attack on the Tuileries, wheat from Poland. Till the disastrous August 10, 1792, and na a reward for such a prominent position among the revolu-tionaries. He founded the club of the corducting the attack on the Tuileries, wheat from Poland. Till the disastrous August 10, 1792, and an a reward for such are of Dantzig from German control,

chieffy on its transit trade, particularly in wheat from Poland. Till the disastrous war of 1914-18, which resulted in the sev-crance of Dantzig from German control, it was considered one of the most impor-tant seaports in the Prussian nonarchy. By the treaty of 1910 it was made a free city, together with the surrounding terri-tory, under the protection of the League of Nations. All property situated within the free city formerly belonging to the German empire was transferred to either Danig or Poland. Pep. 170:337. **Danube** (dan'ib); and *Idea Tomas-bius*; German, *Donas*), a celebrated river of Europe, originates in two small streams rising in the Schwarz-wald, or Black Forest, in Baden, and uniting at Donaueschugen. The direct distance from source to mouth of the Danube is about 1000 miles, and its total length, including windings, about 1670 miles. From its source the Danube flows in a northeasterly direction to Ulm, in Würtemberg, where it becomes navigable for steamers. Here it turns in a south-easterly direction, entering Austria at Passau, passing Vienna and Budapest, above which latter town it suddenly turns due south, holding this direction till it is joined by the Drave, after which it runs s. S. E. and enters Servia at Belgrade. Continuing its general course castward it forms for a long distance the boundary line between Roumania and Budapest, and flowing between Roumania and Bessarabia falls into the Black Sea by three different outlets. In the upper part of its course, through Würtenberg and Bavaria, the Danube flows through some of the most fertile and populous districts of its basin. Its principal affuents here are the Iser and Lech. In Austria it passes through a succession of pictures as the seas and Lech. In Austria it passes through a succession of pictures as through a suc

#### **Danubian Principalities**

forming a labyrinth of islands known as Schütten, but on emerging it flows unin-terruptedly southwards through wide N. N. E. of Boston. It has manufactures plains interspersed with pools, marshes, of shocs, leather, electric lamps, bricks, and sandy wastes. The principal afflo-etc., and contains St. John's Preparatory ents here are the Save, the Drave and College and Essex County Agricultural the Theiss. Sixty miles before entering School. Pop. (1920) 11,108. Roumania the river passes through a suc-cession of rapids or cataracts. The river was formerly impassable for ships at this point, but the channel was made navig-capo. The car shops of the Chicago & able by extensive engineering works and Eastern Illinois R. R. are here. There canals. The last of these cataracts, are 25 coal mines in the county. Danville



mania.

at Old Orsova, is called the Iron Gate, The lower course of the Danube, in Roumania and Bulgaria, is through a flat and marshy tract, fertile but hadly cultivated and thinly peopled. In this part it increases its width from 1400 to 2100 yards, and farther on forms an ex-panse like a sea, and is studded with islands. Of the three outlets the Sulina Meuth is the deepest, and is usually thosen by ships bound up the river. The Danube is maxigable for steamers up to Regensburg (Ratisbon), nearly 1500 miles from its mouth. Some of its tributaries, such as the Save, the Theiss and the trave, are also navigable, so that the water system of the Danube may be stimated as admitting of about 2500 miles of steam maxigation. Danubian Principalities. See Roar

the god. **Daph'ne**, a genus of plants, nat. **Daph'ne**, order Thymelaceæ. They are shrubs, inhabiting the greater part of the northern hemisphere, but chiefly the south of Europe and the warmer parts of Asia. The best known is the mezereon (D. Meserdums), with pale-green leaves and very fragrant flowers. D. Lawreöla (spurge laurel) has an irritant bark, and its berries are poisonous.

and very fragrant flowers. D. Lawreola (spurge laurel) has an irritant bark, and its berries are poisonous. Daphnia (dafnica), the water-flea, a genus of minute crustaceans belonging to the division of Branchiopoda. The best-known species is the D. puler, or 'branch-horned' water-flea, which is a favorite microscopical object. The head is prolonged into a snout, and is pro-vided with a single, central. compound eye; it is also furnished with antennæ, which act as oars, propelling it through the water by a series of short springs or jerks. These animals are very abundant in many ponds and ditches; and as they assume a red color in summer impart the appearance of blood to the water. Darab (dä-räb'), a town of Fars, Per-situated among groves of dates, oranges and lemons. Pop. about 5000. Darbhanga (dur-bung'ga), a town of Behar and Orissa, India, 68 miles N.E. of Patna. It is the resi-dence of the maharaja. Pop. 42,628. D'Arblay, MADAME. See Burney, Frances. Darby (där'bi), a borough of Delaware ('O., Pennsylvania, 5 miles s.w. of Philadelphia. It has silk and woolen mills and other manufactures. Pop. (1920) 7922. Dardanelles (da r'da-nelz); ancient Hellespont), a forw

mills and other manufactures. Pop. (1920) 7922. Dardanelles (dar'da-nelz): ancient later times the name has been applied the later times the name has been applied the connects the Sea of archer. Marmora with the Egean Sea, and at this particular point separates Europe from Asia. It is about 40 miles in north extremity of South America, be-negth, and varies in breadth from 1 to 4 the Asiatic side the country is fine and fertile, rising gradually upwards from the of Panama, but more strictly applied to

c. of Harrisburg. It has iron and steel sea to the range of Mount Ida; the European side, formed by the peninsula of Gal-banzig. Se Densise.
 Daphne (daf ) the Greek name Turkey it was strongly fortified. Early in ogy a nymph beloved by Apolio. Deaf French naval force tried to reduce the to the suit of the god, and fleeing from iorts but failed. Later in the year a him, she besought Zous to protect her. British land force also was defeated (see Her prayer was heard, and at the moment Apollo was about to encircle her destroyed and the Dardanelles became in his arms she was changed into a part of the Zone of the Straits, under laurel, a tree thenceforth consecrated to Allied supervision.
 Daph'ne, order Thymelaces. They of the Trojans.

of the Trojans,

Dardanus (mythology, the progenitor of the Trojans. Dare, VIBOINIA, the first child born of English parents in the New World. She was born at Roanoke, Va., in 1687; captured as a child by Indians, and never after heard of. Darfur, or DARFOOB (där'för), a con-Darfur, or DARFOOB (där'för), a con-Considered as lying between lat. 11° and 15° N. and long. 21° and 29° E; on the east it has Kordofan and on the west Wadai, while the regions to the south are occupied by barbarous nations. The inhabitants are Mohammedanes and ne-groes and are semibarbarous. Their oc-cupation is chiefly agriculture, and cattle form their principal wealth. The com-merce with Egypt is extensive, and is carried on entirely by the African system of curavans. It exports ivory, ostrich feathers, gum, copper, etc., and receives in exchange sugar, cotton, cloth, hard-ware, firearms, etc. Pop. est. 750,000. Daric coin of Darius, weighing about 129 grains, value about \$0, and bearing



Golden Darie, from British Mu

### **Darien Scheme**

the neck of land between the Gulf of after a two years' siege, the revolted city Darien and the Pacific. Darien Scheme, a celebrated finan-OOO men against the Scythians on the Ouo men against the Scythians on the Danube, from which he extricated himself ceived and set afloat by William Paterson, a Scotsman, towards the close of the sev-himself against the Athenians who had enteenth century. Paterson was a man of bold and original conceptions, and pos-sent an army under Mardonius to invade sessed of a wide knowledge of commerce and finance. He was the first projector of the Bank of England, but was disap-the Bank of England, but was disap-scheme was one of magnificent propor-scheme was one of magnificent propor-tions. He proposed to form an emporium on each side of the Isthmus of Darien or Panama for the trade of the opposite con-tinents. The settlement thus formed would become the entrepôt for an im-determined on a third expedition when he mense exchange between the manufactures died, R.C. 485.—(2) DARIUS II, surnamed The network of fand between the Guif of Darien and the Pacific. **Darien Scheme**, cial project conceived and set afloat by William Paterson, a Scotaman, towards the close of the seventeenth century. Paterson was a man of bold and original conceptions, and possessed of a wide knowledge of commerce and finance. He was the first projector of the Bank of England, but was disappointed of his just recompense. His next scheme was one of magnificent proportions. He proposed to form an emporium on each side of the Isthmus of Darien or Panama for the trade of the opposite continents. The settlement thus formed would become the entrepôt for an immense exchange between the manufactures of Europe and the produce of South America and Asia. Paterson had designed to limit the benefits of the scheme to Scotland mainly, but had to seek help in and mainly, but had to seek help in London, where the subscriptions soon ran up to £300,000. Alarm was soon excited among the English merchants, especially up to £300,000. Alarm was soon excited among the English merchants, especially those connected with the Indies, at the gi-gantic Scotch scheme, and the English subscriptions were withdrawn. Scotland, indignant at this treatment, subscribed at once and with great enthusiasm £400,000, a full half of all the cash in the kingdom. Little more than the half, however, was paid up. In 1638 five large vessels laden with stores, etc., and with 1200 intend-ing colonists, sailed for the Isthmus of Darien. The settlement was formed in a suitable position, and the colonists fortified a secure and capacious harbor; but nothing clase had been rightly cal-culated. Many of the colonists were of the gentry, totally unacquainted with any of the arts necessary in a new col-ony; the provisions were either improper for the climate or soon exhausted; the merchandise they had brought was not adapted for the West Indian market. To add to their difficulties the colonists were entracted by the Spaniards and all com-merce torbidden with them. For eight months the colony hore up, but at the end of that time the survivors were com-pelled by disease and famine to abandon their settlement and return to Europe. Two of the ships were lost on the way home, and only about thirty of the colo-nists, including Paterson, reached Scot-land. **Darius** (da-ti'us), the name of several

10,000 strong, under Mittades, and com-pletely defeated (450 B.C). Darius had determined on a third expedition when he died, B.C. 485.—(2) DARUS II, surnamed Nothos, or the Bastard, by the Greeks, an illegitimate son of Artaxerxes I (Longimdnus). He ascended the throne in 423, and died in 404. His son Cyrus is familiar to us through Xenophon's Anabasis.—(3) DARUS III, surnamed Codomanus, great grandson of Darius II, was the twelfth and last king of Persia. He ascended the throne B.C. 333, when the kingdom had been weakened by luxury and the tyranny of the satrape under his predecessors, and could not resist the attacks of a powerful invader. Such was Alexander of Macedon; and the army which was sent against him by Darius was totally routed on the banks of the Granicus, in Asia Minor. Darius then hastened with 400,000 soldiers to meet Alexander in the mountainous re-gion of Cilicia, and was a second time totally defeated near the Issus, B.C. 333. Two years afterwards, all proposals for peace having been rejected by Alexander. Darius collected a second army, and meeting the Macedonian forces between Arbela and Gaugamela was again routed and had to seek safety in flight (331 B.C.). Alexander now captured Suss the capital, and Persepolia, and reduced all Persia. Meanwhile Darius was col-lecting another army at Ecbatana in Media, when a traitorous conspiracy was formed against him by which he lost his life in 330 B.C. Alexander married his daughter Statira.

their settlement and return to Europe, daughter Statira. Two of the ships were lost on the way **Darjeeling**, or **DABJILING** (där-jël'-home, and only about thirty of the colo-nists, including Paterson, reached Scot-land. **Darius** (da-ri'us), the name of several Behar; area, 1234 sq. miles. Tea, coffee. **Persian kings**. (1) DARUS I, cinchona and cotton are cultivated more fourth king of Persia, son of Hystaspes, or less, and the cultivation of the tea-a prince of the royal family of the staple industry. Pop. 249,117.—**DABJER**. 521. His reign was distinguished by ING, the chief town in the district, is many important events. He reduced, a sanatory station for the British troops,

-Darling District is a pastoral district about 50,000 sq. miles in extent, in the s. w. of New South Wales, and watered by the Darling and the Murray.—The Darling Docens consists of a rich table-land west of Brisbane in Queensland. It is wall watered and measures about 4000 and west of Brisbane in Queensland. It is well watered, and measures about 6000 sq. miles. The Darling Range is a range of granite mountains in Western Austra-lia, running in a northerly direction par-allel with the coast from Point D'Entre-casteaux for 250 miles. **Darling**, GRACE, a celebrated English the Longstone Lighthouse (Farne Islands, coast of Northumberland), of which her father was keeper. In 1838 the steamer Forfarshire, with forty-one passengers on board besides her crew, became disabled off the Kerne Light

Forfarshire, with forty-one passengers on tarce of Scripture. Its properties are board besides her crew, became disabled said to be narcotic and stupefying, but off the Farne Islands during a storm, and recent researches have cast some doubt was thrown on a rock where she broke on its reported deleterious qualities. It in two, part of the crew and passen-is met with in cornfields, and is now gers left clinging to the wreck. Next morning William Darling descried them from Longstone, about a mile distant, but he shrank from attempting to reach the shrank from attempting to reach the ewreck through a boiling sea in a boat. His daughter Grace, however, implored him to make the attempt and let her accompany him. At last he consented, and father and daughter each taking an oar, they reached the wreck and succeeded in rescuing nine sufferers. The news of in rescuing nine sufferers. The news of the heroic deed soon spread, and the brave girl received testimonials from all of Scots. It was an unfortunate match, quarters. A purse of 1700 was publiely and ere long gave rise first to coolness,

and though little more than 36 miles from the plains stands at an elevation of 7400 years afterwards she died of consumption, ft. above sea-level, on a ridge with deep valleys on either side, in a bleak but healthy situation. There is a residence of the lieutenant-governor, barracks, a sanatorium, etc. Pop. 16,924, much in-creased in the hot weather. Darlaston (där'las-tun), a town and parish of England, 17 miles s. by r. of Stafford. It has exten-sive coal and iron mines. Pop. 17,107. Darley (dar'li), FELIX O. CARE, art-sive coal and iron mines. Pop. 17,107. Darley (dar'li), FELIX O. CARE, art-stressed of Sleepy Hollow and Rip Van Wriskle, and his illustrations for the novels of Judd, Dickens, Cooper and Simms. In 1868, after residing for some years in Europe, he published Sketches Abroad with Pen and Pencil. Darling (darl'ing; from a governor, barlag firection till it joins the Murray. -Darling Rirect, a river rising in the N. E of New South Wales, flows in a south westerly direction till it joins the Murray. -Darling Nirection till it joins the Murray. subscribed and presented to ner. Four years afterwards she died of consumption, in 1842. Darlington (där'ling-tun), a munic-ipal and parliamentary borough of England, 17½ miles south of Durham; well built, chiefly of brick. The woolen manufacture is carried on to a considerable extent, and there are large-ironworks and establishments manufac-turing steel, locomotive engines, iron bridges, etc. Pop. (1911) 55.653. Darlingtonia (där-ling-tö'ni-a), a American pitcher-plants, nat. order Sar-raceniaces. A single species is known from California. The leaves are long and trumpet-shaped, with a wing rising from one side of the mouth. Darmstadt (darm'stat), a town of Grand-duchy of Hesse, in a sandy plain, sloping to the Rhine, 15 m. 8. of Frank-fort. It consists of an old and a new town. The former, which is the business part of the town, is very psorly built; the houses are old, and the streets narrow and gromy. The new town is laid out with great regularity, and has handsome squares and houses. Among the remark-able buildings are the old palace (with a library of 500,000 volumes and 4000 MSS., a picture-gallery, and a rich museum of natural history), the Roman Catholic Church, and the Rathhaus, or town-hall, built in 15%). Darmstadt has some iron-foundries, breweries, etc. but depends more upon the residence of the court than upon either trade or manu-factures. Pop. (1910) \$6523.

Darmstadt, or HERSE - DARMSTADT. Darmstadt, or HERSE - DARMSTADT. Darnel (dar'nel), the popular name of Lolium temulentum, a spe-cies of poisonous grass. It appears to be the infelix lolium of Virgil, and the tares of Scripture. Its properties are said to be narcotic and stupefying, but recent researches have cast some doubt

then to open quarrel, and finally to deadly hate, which the murder of Rizzio, to which Darnley was a party, only in-creased. Mary affected, however, to be reconciled to him, but could not long con-ceal her contempt for the handsome imbe-cile. After the birth of a son, subsequently James VI, Darnley was seized at Ghasgow with smallpox, from which he had barely recovered when Mary visited him, and had him conveyed to an isolated house called Kirk of Field, close to the Edinburgh city walls. This dwelling, which belonged to a retainer of Bothwell's, the rapidly rising favorite, was blown into the air with gun-powder (February 10, 1567). The dead bodies of the king and his page were found in a field at a distance of 80 yards from the house, quite free from any mark which such an explosion would cause. Strong circumstantial evidence points to Both-well as the murderer, and, some think, to Mary as an accomplice in the crime. **Darrang** (durrung), a district of

**Darrang** (dur'rung), a district of Province, forming a portion of the upper valley of the Brahmaputra; area, 3418 sq. miles; pop. 340,000. Virgin forests cover a large portion of the region. Rice is the chief grain crop. Darrang came under British control in 1826.

**Darters** (dar'ters), or SNAKE-BIBDS, a genus (*Plotus*) of web-footed birds of the pelican tribe, found near the eastern coasts of the tropical parts of America, and on the western coast of tropical Africa, as well as in Australia. The birds perch on trees by the sides of lakes, lagoons and rivers, and after hovering over the water suddenly after hovering over the water suddenly dart at their finny prey with unerring aim (hence the name). From the serpent-like form of their head and neck, the head being scarcely thicker than the neck, they are called snake-birds.

Dartford (dart'ford), a town of Eng-land, county of Kent, on the Darent, 15 miles southeast of London.

war of 1812, were fired upon, 7 being killed and 60 wounded. **Dartmouth** (dart'muth), a town and seaport of Devonshire, England, on the Dart River, near it mouth. It has shipyards, breweries, paint works, etc., and a large shipping trade. Pon. 7005. works, etc Pop. 7005.

Pop. 7005. Dartmouth, a town of Nova Scotia, on Halifax Harbor, op-posite Halifax, with which there is ferry service. Industries include oil and sugar refineries, cordage works, spice, chocolat and soap factories; lumber and rolling mills, boiler works, foundries, etc. It has hydro-electric power. Pop. 8000. Dartmouth, a town of Bristol Co., Massachusetts, on the Paskamansett River, 5 miles s. of New Bedford, in a poultry and dairy district. Pop. 6493.

Bedford, in Pop. 6493.

Pop. 6493. Dartmouth College, an institution founded at Lebanon, Connecticut, in 1754 and re-moved to Hanover, New Hampshire, in 1769. Aided by Lord Dartmouth, an English nobleman, it was given his name. In 1816 the New Hampshire legislature changed its name to Dartmouth Univer-sity, but this was opposed by the trustees and a memorable lawsuit followed, the case being carried to the United States Supreme Court. Daniel Webster was one of the counsel for the trustees, whose case was won and the university organi-zation dissolved. The college has re-mained a conservative institution, and had, in 1919, 125 instructors and 1127 students, with an endowment of nearly \$3,000,000. Daru, PIERBE ANTOINE NORL MAT-

students, with an endowment of nearly \$3,000,000. Daru, PIERBE ANTOINE NOEL MAT-THEU BRUNO, COUNT, a French statesman and author, born at Montpellier in 1767; died in 1829. He favored the revolution, but was imprisoned during the reign of terror, when he translated the odes and epistles of Horace into French verse. Napoleon discovered his abilities and rewarded him by various official ap-pointments of trust. In the camnaigns against Austria and Prussia (1806-09) be served with ability as a diplomatist and financier. He became chief minister of state in 1811, and was called to the cham-ber of peers in 1818. In later life he devoted himself exclusively to letters. His chief works are his History of the Vene-tian Republic, Life of Sully, History of Bretagne, etc. the Darent, 15 miles southeast of London. and rewarded him by various official ap-On the river are numerous paper, corn, pointments of trust. In the camnaigns and oil mills, a large foundry, and an against Austria and Prussia (1806-09) he extensive gunpowder manufactory, etc. served with ability as a diplomatist and Dartford was the first place in Britain where a paper-mill was erected. Wat state in 1811, and was called to the cham-tryler was a native of this place, and the ber of peers in 1818. In later life he insurrection known by his name broke devoted himself exclusively to letters. His out at Dartford. Pop. (1911) 23,609. Dartmoor (dart'mör), an extensive upland tract in Ibyon-ing Yes Tor, 2050 feet. Dartmoor prison, huilt in 1809 for French prisoners, is now a convict prison. Here occurred the Dart-neor Massacre, in April, 1815, in which a number of Americans, confined during the thriving town. The staple manufacture

#### Darwin

is cotton; other manufactures are paper, iron castings, earthenware, etc. Pop. (1911) 40,844.

(1911) 40,844. Darwin (dar'win), CHARLES ROBERT, at Shrewsbury in 1800; died at Down, near Beckenham, Kent, in 1882; was the son of Dr. Robert Darwin and grand-son of Dr. Erasmus Darwin. Ile was educated at Shrewsbury School, and at the universities of Edinburgh and Cam-bridge. He early devoted himself to the study of natural history, and in 1831 he was appointed naturalist to the survey-ing worse of H M S. Reagle. returning ing voyage of H.M.S. Beagle, returning



Charles Darwin. See Evolution, Natural Sciencion, etc. Dasheen (dasheen), a root vegetable of knowledge, part of which he soon gave to the public in various works. In 1833 he married his cousin Emma Wedgwood and henceforth spent the life of a quite country gentleman, engrossed in scientific pursuits — experimenting, observing, re-cording, reflecting and generalizing. In 1839 he published his Journal of Re-cording, reflecting and generalizing. In 1839 he published his Journal of Re-scarches during a Voyage round the world : in 1842 Structure and Distribu-tion of Coral Reefs; in 1844 Geological Observations on Volcanic Islands, etc.; in 1846 Geological Observations in Nowth America; in 1851 and 1854 his Mone transfer the Fassil Lepadridr and Ralarnidry of Great Britain. In 18550 his name attained its great celebrity by the publication of the Origin of Species by Means of Net-ward Nelection. This work, scouted and derided though it was at first in certain quarters, may be said to have worked

nothing less than a revolution in biologi-cal science. In it for the first time was given a full and satisfactory exposition of the theory of evolution as applied to plants and animals, the origin of species being explained on the hypothesis of nat-ural selection. The rest of his works are largely based on the material he had ac-cumulated for the elaboration of this great theory. The principal are a treatise on the Fertilization of Orchids (1862) : Domesticated Animals and Cultivated Plants, or The Principle of Variation, etc., under Domestication (1867) : De-scent of Man and Variation in Relation to Ses (1871) : The Expression of the Emotions in Man and Animals (1872) : Movements and Habits of Climbing Plants (1875) : Cross and Self + ertiliza-tion (1876) : The Power of Movement in Plants (1880) : The Formation of Vegetable Mold (1881), the last con-taining a vast amount of information in regard to the common earthworm. Mr. Darwin was buried in Westminster Abbey. Abbey.

Darwin, ERASMUS, an English phy-sician and poet, was born in 1731; died 1802. His works include Zoonomia, or the Laws of Organic Life; Phytologia, or the Philosophy of Agricul-ture and Gardening. Charles Darwin was his grandhon his grandson.

Darwinism (dar'win-izm), the views, origin and development of animals and plants, expressed in detail and advocated with much earnestness in the works of Charles Darwin. See Evolution, Natural Selection, etc.

#### Dasyure

#### Dataria

Tasmania, and so named in contrast to the opossums of the New World (*Didel-phys*), which have naked tails somewhat like rats. The ursine dasyure (*Dasyūrus ursinus*) of Tasmania is about the size of a badger, but of a sturdier form, of a dull black color, carnivorous, and of so savage a temper as to have gained for itself the alternative name of *Diabölus ursinus*, or Tasmanian devil. Formerly it was most destructive to flocks and poultry yards, but is now in the inhabited districts nearly extirpated. The various species of the genus have much the same nature and habits as the Euro-pean polecat. pean polecat.

pean polecat. **Dataria** (da-tâ'ri-a), the papal office from which all bulls are issued. **Date** (Latin, datam, given), that ad-dition to a writing which speci-ties the year, month and day when, and usually the place where, it was given or executed; also the time when any-event happened, when anything was transacted, or when anything is to be dene. de ne.

transacted, or when anything is to be done. **Date**, the fruit of the date-palm or *tylifera*. The fruit is used extensively as an article of food by the natives of Northern Africa and of some countries of Asia. It consists of an external pericarp, separable into three portions, and covering a seed which is hard and horny in consequence of the nature of the albumen in which the embry plant is buried. Next to the cocount tree the date is unquestionably the most in-terstand and us ful of the palm tribe. Its start shoots up to the height of 50 or 60 feet without branch or division, and of the the same thickness through-out its height. From the summit it throws out a magnificant crown of large features shaped leaves, and a number of publics, each which in the female out barts a bunch of from 180 to 200 vists, each which is eaten frish or dried. It is start is eaten frish or dried.

The finit is eaten firsh or dried, a preserve, this of dries period of the Arabs who there is no from dates by formenta-formed in Section and on the contin-tion of the dates by formenta-tion of the dates and its first is used in the manufacture where it is used in the manufacture berie acid. This is a when in the date the date the date the date the date the transformed in the date the

on the sun and adds a little to the length of each day. On completing the round he will have added twenty-four hours, and thus have gained a full day. It may be Sunday still to him, but it will be Monday to the people he had left. If he goes round opposite to the sun he losset solar time and each day becomes shorter, so that on completing the If he goes round opposite to the sun he loses solar time and each day becomes shorter, so that on completing the round he has lost a day's time uncon-sciously. It is now Monday to him, but it is Sunday to the people he left when starting. To avoid this complication a meridian line has been chosen, on cross-ing which the traveler changes his reck-oning. If it is Tuesday, when he crosses this line going westward he calls it Monday. If going eastward he calls it Monday. If going eastward he calls it Wednesday. Thus an awkward compli-cation is avoided. The date-line has been fixed at the 180° meridian from Greenwich. This line has the advan-tage of traversing water through nearly all its course. Two deviations are mad-where it crosses island masses. After passing through Bering Strait it slands, that they may have the same day as the United States, to which they belong, when the Fiji and neighboring group-of islands helonging to Great Britain ar-ceached it hends to the east, so as not te-embarrass the local commerce with a change of day. Date-nlum the name given to several. embarrass the change of day.

change of day. **Date-plum**, the name given to severa<sup>10</sup> genus of trees of the chony family. The European date-plum is the *D. Lotus*. low-growing tree, native of the south Europe. It produces a small fruit. **Constant** supposed lotus of the ancients. American date-plum, or persimmon ( *iriginizhani*), attains a height of 5<sup>20</sup> 60 feet; the fruit is nearly round, ab-an inch in diameter, is very austers, edible after being frosted. The Chine date-plum (*D. Kaki*) is cultivated the sake of its fruit, which is about size of a small apple, and is made i a preserve.

#### Datia

### Datiscin

Datiscin (da-tis'sin), a substance tist, born in 1705; died in 1867. For Deticos cannebine, a harbaceous, diœci-istry, botany and rural economy at Ox-ous perennial, a native of the south of ford, and wrote several esteemed scien-Europe, where it is used as a substitute tific works. for Peruvian bark, and for making cord-age. Datiscin (CaHaOus) is extracted from the leaves, and is used as a yel-baucus (da'kus), a genus of umbel-liferung plants of the south of the several esteemed scien-D'Aubigné (do-ben-yā). See Merlu D'Aubigné (da'kus), a genus of umbel-liferung plants of the several esteemed scien-ting barbarde (da'kus), a genus of umbel-liferung plants of the several esteemed scien-ter of the several esteemed scien-barbarde (da'kus), a genus of umbel-liferung plants of the several esteemed scien-ter of the several esteemed scien-ter of the several esteemed scien-barbarde (da'kus), a genus of umbel-liferung plants of the several esteemed scien-ter of the several esteemed scien-tifer of the several esteemed scien-ter of the several esteemed scien-t



Thorn-apple (Datwa Stramo-num). 1. Root. 2. Seed.
an American species, are smoked as a remedy for asthma.
Daturine (d à' t û - rin), a poisonous alkaioid found in the thorn-alkaioid found in the thorn-ical formula being identical with atro-pine, the alkaloid from deadly nightshade.
Daubenton (do-bàp-tôu), or I' At-BENTON. LOUIS JEAN MARIE, a French naturalist and physi-cian, born in 1716; died in 1800. He studied medicine at Paris, and in 1742 began to assist Buffon in the preparation of his great work on natural history, the anatomical articles of which were pre-pared by him. In 1745 he was appointed of natural history in Paris, of which he and charge for nearly fifty years. He became professor of natural history in the College of France in 1778. Among his publications are: Instructions to Shepherds, A Methodical View of Mich were predical charge for nearly fifty years. He account of the source of the cause of the Confederacy, a swiety organized in Nashville, Tennes-ee, in 1814, and composed of the witows, widows, mothers, sisters or lineal de-scendants of men who served in the Con-tederacy.
Daubenty (da'be-ni), CHARLES GILES is to bring young women within the jaffuence of the first Eucyclo
Daubenty (da'be-ni), CHARLES GILES is to bring young women within the jaffuence of the church and to colperate

**Daughters** of the King

ous perennial, a native of the south of Europe, where it is used as a substitute for Peruvian bark, and for making cord-form the leaves, and is used as a yel-from the leaves, and is used as a yel-low dye. Dative (da'tiv; L. dstirus, from dare, to give), in grammar, a term applied to the case of nouns which usu-ally follow verbs or other parts of the settled in Paris in 1857, and speech that express giving, or some act directed to the object, generally indicated out muces, till he discovered his powers as a novelist, when he speedily rose to the highest rank. Ills more cele-trumpet-shaped flowers. There are sev-trumpet-shaped flowers. Thora-apple (Datwa Strame-nium). -1, Root. 2, Seed vessi cut acros.

a patrotic society of American women organized in 1891, membership being confined to women lineally descended from 'a military or naval or marine officer, soldier, sailor, or marine,' in the Revolutionary service, or from one who signed the Declaration of Independence, or was a member of the Continental or State congresses or a congressional offi-

with pastors to that end. (It is dis-tinct from the 'King's Daughters.') **Dauw** (da'u), or **PEECHI** (Equas **Daughters of the Revolution** a patrotic society of American women Orange River. Its general color is a organized in 1891, membership being pale brown, with grayish white on the confined to women lineally descended abdomen and inner parts of the limbs. from 'a military or naval or marine Its head, neck and body and the upper officer, soldier, sailor, or marine,' in the parts of its limbs are striped like the Revolutionary service, or from one who zebra, but the stripes are not so dark signed the Declaration of Independence, in color. The Dutch colonists call it or was a member of the Continental or Bonte-gaugga. Bonte-quagga.

officer, solidier, soli

# David I

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# David

writings are no longer extant. His life was written by Ricemarch, bishop of St. David's in the eleventh century. **David's**, ST. a decayed episcopal city of Wales, County Pembroke, near the promontory of St. David's Head, once the metropolitan see of Wales. Within a space of 1200 yards in circuit are the cathedral, chiefly of the twelfth century, with a finely decorated rood-loft, the episcopal palace, the ruins of St. Mary's College, and other ecclesiastical edifices, chiefly ruinous. Pop. of town-ship 5:318. edifices, cl ship 5398.

**Davidson**, GEORGE. astronomer, born at Nottingham, England, in 1825, and brought to the United States in childhood. He was appointed on the United States coast survey in 1845, and had charge of the transit of various expe-ditions to Japan in 1874, and New Mexico in 1882. He completed the transit factors of many thousands of stars. In 1873 he became professor in the University of California, and president of the California Academy of Sciences in 1874. In 1808 he became professor of geography in the University of California. He was a mem-ber of the National Academy of Science. He died in 1911. Davies (davēs), SIR JOHN, an Eng-GEORGE, astronomer, born Davidson,

Inversity of California. He was a member of the National Academy of Science. He died in 1911.
Davies (da'vēs), STR JOHN, an English poet and lawyer, born in 1570; died in 1626. In 1603 he was appointed solicitor-general for Ireland, and soon after attorncy-general. He was a knighted in 1607, returned to the English Parliament in 1621, and obtained the dignity of lord chief-justice in 1626. He wrote Orchestra, Hymas to Astrca, Nosce Tcipsum, a metaphysical poem and his best-known work; he is also the author of a work on the political state of Ireland.
Davis, ANDREW JACKSON, clairvoyant, Davis, horn in Orange county, New York, in 1826. He developed in youth remarkable powers. An uneducated boy, he wrote, under clairvoyant influence, tomes full of philosophical speculations and learned disquisitions. These were published as Principles of Nature, Her Divine Revelations, The Urcat Harmonia (4 vols.), etc. They advocated the doctrines of spiritualism. He practiced for many years as a clairvoyant healer of the sick. He died in 1910.
Davis, CUSHMAN KELLOGG, legislator, in 1831; died in 1900. He removed to Wisconsin, studied hw, and served in the Civil war. He was elected to the Minnesota legislature in 18057, was district attorney of that State 1808-73, and governor 1877-1900, and served on the Paris Peace Commission of 1898.

Davis (dá'vis), HENEY WINTER statesman, was born in An-napolis, Maryland, in 1817. As a mem-ber of Congress he was a brilliant orator Although representing a slave State, hc was unfaltering in fidelity to the Union and a strenuous advocate of emancipation and a strenuous alvocate of emancipation frage. He died in 1865. Davis, JEFF (1862-1913), an Ameri – near Richmond. He was appointes / attorney-general of Arkansas in 1808, an-/ in 1900 became governor. He had the distinction of being the first governor of Arkansas to be elected three times to that othce: in 1900, in 1002 and again in 1901. In January, 1907, he became a United States Senator, and was re-elected, but died at the beginning of his second term. Davis, JEFFEBSON, president of the Confederate States of America during the Civil war; born in Kentucky in 1808. He was trained at West Point Military Academy, and from 1828 to 1855 saw a good deal of service on the frontier. At the latter date he became a cotton planter in the State of Mississippi, Ile in 1808. He was trained at West Point Military Academy, and from 1828 to 1855 saw a good deal of service on the frontier. At the latter date he became a cotton planter in the State of Mississippi. He was elected to Congress in 1845, but at the commencement of the Mexican war he left Congress and engaged actively in 1847, and held various posts in the gov-ernment, uphokling the policy of the slave States and the doctrine of alave rights. On the outbreak of the Southern States, continued president throughout the was chosen president of the Southern States, continued president throughout the war, and was taken prisoner after the fall of Richmond. After two years' imprison-ment in Fortress Monroe, he was set at liberty by the general annesty of 1868. He afterward wrote a history of the war. He died in 1889 at New Orleans. Davis, John William (1873-), an and diplomat, born in Clarksburg, W. Ya. was graduated from Washington and Lee University in 1892 and admitted to the bar in 1885. He was elected to Congress in 1910 and re-elected in 1912, serving till Angust, 1913, when he resigned to become United States Solicitor-General. In 1918, during the European war, President Wil son appointed him ambassador to Great Britain. While Solicitor-General he ar-gued a number of important cases in the supreme court, including those involving the constitutionality of the Selective Serv-ice Act and the Adamson eight-hour law. The government won both case. Davis, or Davys, JOHN (1550-1605). Davis, or Davys, JOHN (1550-1605). Davis, be provenshire. In 1585-87 he conducted three expeditions for the

he conducted three expeditions for the

**Davis, BicHARD HARDING, war corre-story writer, was born at Philadelphia in 1864, entered newspaper work in 1887 and began his war-correspondent career reporting the Græco-Turkish war of 1887. He served in the Cuban insurrection, the Spanish-American war, the South African wars, the Russo-Japanese war, the Balkan wars, and the first years of the great European war. He was in Belgium when the Germans invaded that country and was captured as a spy by the Teutons, narrowly escaping with his life. Later he went to Salonika and Serbia. He re-turned from Europe early in 1916 and began work on a new book. With the French in France and Salonika, but the terrific strain he had undergone sapped his strength and he died suddenly. April 13, 1916, only a few weeks after his re-turn home. He was the author of Soldiers of Fortune, Gallagher and Other Stories. The Bar Sinister, etc. REECCA HARD-**The Bar Sinister, etc. REFECCA HARD-ING DAVIS, his mother, was also a writer of magazine stories. She was born at Washington, Pa., 1831; died 1910.

Davis Strait, a narrow sea which separates Greenland from Baffin Land, and unites Baffin Bay with the Atlantic Ocean; lat. 60° to 70° N.

discovery of the northwest passage. In the first he coasted round the south of Greenland and sailed across the strait that now bears his name into Cumber-iand Gulf, and in the third he sailed arms and Gulf, and in the third he sailed to of Cavendish to the Pacific in 1591-93, and made several voyages to the East Indies. Davis, RICHARD HARDING, war corre-spondent, novelist and short-story writer, was born at Philadelphia in 1864, entered newspaper work in 1897 and began his war-correspondent career reporting the Gresco-Turkish war of 1887. He served in the Cuban insurrection, the Spaniab-American war, the South African wars, and the first years of the great European wars. He was in Belgium when the Germans invaded that country and



#### Sir Humphry Davy

Sar Humphry Davy and early developed a taste for scientific experiments. No successful was he in his studies that he was appointed pro-fessor of chemistry in the Royal Insti-tution at the age of twenty-four. In 1803 he was chosen a member of the Royal Society. His discoveries with the Bay with the Atlantic Ocean; lat. 60° and early developed a taste for scientific to 70° N. **Davits** (dā'vits), two projecting arms his studies that he was appointed pre-or stern of a vessel, used for suspend-ting or lowering and hoisting the boats 1503 he was chosen a member of the by means of sheave and pulley. They are fixed so as to admit of being shipped and unshipped at pleasure. **Davos** (dâ-vôs), an elevated valley (da-vôs), an elevated valley (da-vôs), an elevated valley tion of the simple nature of the oxymuri-land. Canton Grisons, containing several villages; a winter resort of versons suf-fering from chest diseases. **Davout**, vr Davoust (di-vô), Louis stidt and Prince of Eckmühl, marshal appear of France, born in 1770 at feasor of chemistry to the Board of Annoux, in Burgundy; died in 1823. He entry at the age of seven-served with distinction under Du-mouriez, and at the passage of the Rhine, in 1707. He went with Bonaparte to Egypt in 1798, and commanded the car-

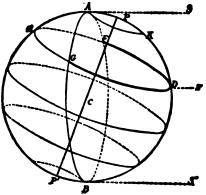
# Davy Lamp

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Day

at any time is the equation of 17

any at any time is the equation of time. The length of the days and nights at any place varies with the latitude and season of the year, owing to the inclina-tion of the searth's axis. In the first place, the days and nights are equal (tweive hours each) all over the world on the 21st of March and the 21st of September, which dates are called the cernsi (spring) and sutumnal equinoses (Lat equal, equal; nos, night). Again, the days and nights are always of equal length at the equator, which, for this reason, is sometimes called the equinoctial line. With these exceptions, we find the difference between the duration of the day and the night varying more and more as we recede from the equator. This will be easily understood from a consideration of the accompanying figure, which represents A



within the Anarctic circle never enter into the dark. From this it will be seen that at both poles the year consists of one day of six months' duration, and one night of the same length. The Babylonians began the day at sun-rising; the Jews at sunsetting; the Egyptians and Romans at midnight, as do most modern peoples. The civil day in most countries is divided into two por-tions of twelve hours each. The abbre-viations P. M. and A. M. (the first signify-ing post meridiem, Jatin for siternoon; the latter snie meridiem, forenoon) are places reckon the day from sunset to sunset, and enumerate the hours up to twelve parts of two hours each. For astronomical purposes the day is divided into twenty-four hours instead of two parts of twelve hours. Formerly it be-gan at noon, but size January 1, 1885, the day of twenty-four hours has begun at midnight at Greenwich Observatory; and parts of trelve hours. Formerly it bescales the day of the tree hours has begun at midnight at Greenwich. The Greenwich day practically determines the date for all the second process elsewhere than at Greenwich. The Greenwich the date (day of the week and month) is everywhere the same date all over the values of the day. Thousas a new date to every have the same date all over the values of the time date hour of the day. Buildinght, which is then at 180° E. or W., goes on revolving, gradually bringing a new date to every have the same date all over the values of the time which sees the allows that the the time till trently four hours after the sume fraction of the earth at the norther is pheres of the carth. Consider a place represent the sumiser and for any place is of the globe never have the same date except when iddight is between them. The actual difference of time between them. The actual difference of the same instant at Honoluu in the Sandwich, F. D. G. is performed in the same instant at Monoluu in the Sandwich, F. D. G. is performed in the same instant at Honoluu in the Sandwich, F. D. G. is performed in the same instant at Honoluu in the Sandwich, F. D. G. is performed in the same instant at Honoluu in the Sandwich, F. D. G. is performed in the same instant at Honoluu in the Sandwich for D. G. is performed in the same instant at Honoluu in the Sandwich for D. G. is performed in the ant is not is position. At the norther which server tave the same date a letter 0 oclock A. M. June 23. While another writing at the same instant at Honoluu in the Sandwich is in this position. At the norther of the same instant at Honoluu in the Sandwich is the order of all this in this position. At the norther within the Arctic circle near the another writing at the same linestant at Honoluu in the Sandwich is the order of all this is the here the circle circle area and places. His father, who was a collector of the treater and hore in 1788. His father, who was a collector of the custom, died while be was an infant.

leaving him a considerable fortune. He was educated at the Charter House and at Oxford. In 1765 he was called to the bar. He renounced most of the in-dulgences of a man of fortune, that he might bestow his superfluities upon those who wanted necessaries; and he also expressed a great contempt for forms and artificial restraint of all kinds. He wrote in prose and verse, on various sub-

those who wanted necessaries; and he also expressed a great contempt for forms and artificial restraint of all kinds. He wrote, in prose and verse, on various sub-jects, but the History of Sandford and Merton is the only work by which his name is perpetuated. Day, WILLIAM RUFUS, statesman, Day, born at Ravenna, Ohio, in 1849. He was admitted to the bar in 1872, be-came a judge in Ohio, and of the United States District Court in 1889. He was appointed assistant Secretary of State in 1897, became Secretary of State in April 1898, and resigned to become chairman of the Paris Peace Commission. He has been an associate justice of the United States Supreme Court since 1903. Daybook, a journal of accounts; a book in which are recorded the debts and credits or accounts of the day. See Bookkceping. Dayfly, neuropterous insects which belong to the genus Ephemera. They are so called because, though they may exist in the larval and pupal state for sev-eral years, in their perfect form they exist only from a few hours to a few days, taking no food, but only propagat-ing their species and then dying. Daylight Saving, a movement to of daylight for working hours by setting the cock ahead one hour in the summer season. It came into force in the United States in April, 1918. See United States. Day-lily, the popular name for a may equal the popular name for a perfect and H. fulra) are grown in gardens. They have long, radical leaves, and a branched, few-flowered scape, with harge, handsome blossoms, the segments of which are united into a tube. Daysof Grace, the pays allowed for busice are united into a tube. Days of Grace, the pays allowed for promissory note or bill of exchange after

Days of Grace, are days allowed for promissory note or bill of exchange after

place of great industrial activity, a to-bacco center, a center of railway com-munication, and in the variety and extent of its manufactures it stands in the front rank of western towns of its size. Its commercial interests are also large. In March, 1913, Dayton was swept by a heavy flood. Pop. (1900) 85,333; (1910) 116,577; (1920) 152,559. Dayton, a city of Florida, Volusia Atlantic coast. It is a popular summer and winter resort. Pop. (1920) 5445. Dayton, bell Co., Kentucky, on Ohio River, opposite Cincinnati. It has piano and watch manufactures, etc., also tobacco interests. Pop. (1920) 7646. Deacon (de'kn), ecclesiastically, a person in the lowest degree of holy orders. The office of deacon was instituted by the apostles, and seven persons were chosen at first to serve at the feasts of Christians, and distribute bread and wine to the communicants, and to minister to the wants of the poor. In the Roman Catholic Church the deacon is heady all the offices of the priesthood. In the Methodist Episcopal Church a deacon ranks next below an elder. In the Pres-byterian and other churches deacons are entrusted with the distribution of alms. Deacon, an incorporated trade, who is

entrusted with the distribution of alms. Deacon, in Scotland, the president of the chairman of its meetings and signs its records. Before the passing of the Burgh Reform Act the deacons of the crafts, or incorporated trades, in royal burghs, formed a constituent part of the town-council, and were understood to represent the trades as distinguished from the mer-chants and guild brethren. The deacon-convenor of the trades in Edinburgh and Glasgow still continues to be a constitu-ent member of the town council. Deaconess (de'kn-es), (1) a female deacon in the primitive church; (2) the term for a kind of quasi sister of mercy among certain American and other Protestants. Dead-eyes, in ships, round, flattish.

Dead-eyes, iu ships, round, flattish, by a rope or an iron band, used to extend the shrouds and stays, and for other purposes.

promissory note or bill of exchange after purposes. it becomes due. Dayton, a city of Ohio, capital of Dead-letter, a letter which lies for a Dayton, Montgomery county, at the for at the post-office, or one which cannot confinence of the Mad and Great Miami be delivered from defect of address, and rivers. 60 miles N.E. of Cincincrati. It which is sent to the general post-office to has abundant waterpower, is on the line be opened and returned to the writer.— of the Miami and Eric Canal, and is a Dead-letter office, a department of the

## Day

**Deadwood** (ded'wud), a city of South Dakota, capital of Law-rence Co., situated among the Black Hills and a great ore reducing center. It is an important trading and supply point. Pop. 3653.

Pop. 3653. Dead Sca (Latin, Lacus Asphaltites; Dead Sca Arabic, Bahr Lut, 'the Sea of Lot'), called in Scripture 'Salt Sea,' 'Sea of the Plains,' and 'East Sea,' a celebrated lake in Asiatic Turkey, near the south extremity of Palestine, south of Syria. The north extremity is 25 miles east of Jerusalem and 10 miles southeast of Jericho; length, north to south, about 46 miles: breadth at the widest part, 9 to 46 miles; breadth at the widest part, 9 to 10; average, about 8½ miles. The basin or hollow in which the Dead Sea reposes forms the south termination of the great depression through which the Jordan flews, that river entering it at its north flows, that river entering it at its north extremity. If receives several other tribu-taries, but has no outlet. The surface is 1312 feet below the level of the Mediter-ranean, and 600 feet below Lake Tiberha, from which the Jordan iernis. It lies deeply imbedded between lofty cliffs of naked limestone, its shores presenting a scene of indescribeble desolation and soli-tude encompassed by desert sunds and flows, that river entering it at its north observe and imitate the actions and ex-extremity. It receives several other tribu-taries, but has no outlet. The surface is of mind and of feeling, to indicate objects 1312 feet below the level of the Mediter-by their appearance and use, and persons ranean, and (80) feet below Lake Tiberius, by some peculiar mark, and to describe from which the Jordan iscutt. It lies their actions by direct imitation. In this deeply imbedded between lofty cliffs of way he and his friends are led to form naked limestone, its snores presenting a a dialect of that universal language of scene of indescribeible desolation and soli-attitude, gesture and expression which tude, encompassed by desert sands and becomes a substitute for words in the bleak, stony, salt hills. Sulphur and rock-hands of the pantomimic actor, and which alt. lava and pumice abound along its adda force and clearness to the finest

94 3

general post-office where dead-letters are examined and disposed of.
Dead-lights, are strong wooden or the sound of the calculation of the second windows of a vessel, so as to close them tightly in bad weather.
Dead Men's Fingers. Nee Alcyona and the edges. It was long assumed that this lake did not exist before the destruction of Nodom and the other clear the species of plants of the genus Lamium, nat order Labiate, the species of plants of the genus Lamium, nat order Labiate, the species of plants of the genus Lamium, nat order Labiate, the species of plants of the genus Lamium, nat order Labiate, the orgen several specter of the resemblance of their leaves to those of the nettle, though they have no stinging property. There are several specters found in isritain (and now also in N. America), as the white dead-nettle (L. Galcobdoion).
Dead Reckoning (ded rek'on-ing), the red (L. garguréruk), and the yellow (L. Galcobdoion).
Dead Reckoning (ded rek'on-ing), the red (L. garguréruk), and the yellow (L. Galcobdoion).
Dead Mend's hip's place at sea without any observation of the heavenly bodies. It is of the plain stood on the lower variation of the heavenly bodies. It is of the plain stood on the lower variation of the heavenly bodies. It is not order ourse to the Red Sea. This theory has on when these cities were destroyed.
Dead Wood (ded'wud), a city of South or from a great or reducing center. It is an important trading and supply point.

mission, scrotula, certain local of climatic conditions, ill health of the mother dur-ing pregnancy, etc. Acquired or ac-cidental deafness, which occurs at all ages, is frequently due to such diseases as smallpox, messles, typhus, paralysis, hydrocephalus and other cerebral affec-tions, but more particularly to scarlet fever, which is somewhat apt to leave the patient deaf owing to the inflam-matory state of the throat extending to the internal ear, and thus causing sup-puration and destruction of the extremely delicate parts of the auditory apparatus. In the greater proportion of deaf-mutes no defect is visible, or can be detected by anatomical examination, and no applica-tions yet discovered appear to be useful. The necessity of communication, and the want of words, oblige the deaf-mutes to observe and imitate the actions and ex-pressions which accompany various states

effusions of the orator; in other words, the natural sign language. This lan-guage, in its elements, is to be found among all nations, and has ever been the medium of communication between voy-agers and the natives of newly discovered countries. It is employed by many savage tribes to supply the paucity of expression in their language and to communicate with other tribes. Among some of the Indians of North America it exists as a highly organized language. Such a means of communication is after all very im-perfect, however, and various more per-rect systems bave been devised to enable deaf-mutes to communicate with one an-other and with the rest of mankind, and thus to gain such an education as people effusions of the orator; in other words, dear-mutes to communicate with one an-other and with the rest of mankind, and thus to gain such an education as people in general possess. In 1648 John Bulwer published the earliest work in English on the instruction of the deaf and dumb. This was followed by Dalgarno's Ars Signorum ('Art of Sigus') in 1661, and Dr. W. D. Holder's Elements of Speech. Dalgarno, who was a native of Scotland, likewise published, in 1680, Didascaloco-phus, or the Dcaf and Dumb Man's Tutor, a work of considerable merit. To Dr. John Wallis, however, Savilian pro-fessor of mathematics at Oxford, is gen-erally ascribed the merit of having been the first Englishman who succeeded in imparting instruction to deaf-mutes. In 1743 the practicability of instructing deaf-mutes was first publicly demonstrated in France by Pereira, a Spaniard, before the Academy of Sciences, which gave its testimutes was first publicly demonstrated in no means a novel system, but of late it France by Pereira, a Spaniard, before the has vastly increased in favor with Academy of Sciences, which gave its testi-authorities. A new mode of teaching mony to the success of the method. About the same time the Abbé de notice, consisting in the use of the system PEpée, who devoted his life and fortune to this subject, introduced a system for Rell. The characters of the alphabet on the instruction of the deaf and dumb, which this system is founded are in-which was taught with great success in tended to reveal to the eye the position the Royal Parisian Institution, and after-of the vocal organs in the formation of wards still further developed by his pupil and successor, the Abbé Sicard. In 1779 and successor, the Abbé Sicard. In 1779 and successor, the Abbé Sicard In 1779 through the labors of Samuel Heinicke, the great uphodder of the vocal or trained at Vienna and throughout Ger-many. About twenty years previously Thomas Braidwood had established near with a flections of the ear. It may many. About twenty years previously the due simply to an accumulation of institution in Great Britain for the school on the articulating system, which was visited by Dr. Johnson during his cold or catarrh, and is likely to pass of unture seducation of the deaf and dumb school on the articulating system, which the cause. When it comes on with a tour in Sochand. The first public cold or catarrh, and is likely to pass of unstitution in Great Britain for the and Mason. From this catallished and in a few days. Attended by pain, ring-trained at Bernondsey in inflammation is likely present. The most 1792 to the Rev. Messrs. Towneend in tractable form of deafueses comes on and Mason. From this catallishment very gradually and painlessly, and is con-originated the London Asylum in Kent rected with disease of the middle ear. If R-ad, which was opened in 1807. In the a skilled ear surgeon were consulted in

United States great advances have been made in the education of deaf-mutes, and a National Deaf-mute College is maintained at Washington by the gov-ernment. Many states have established institutions for the care and instruction of deaf-mutes

animatication are states have established institutions for the care and instruction of deaf-mutes. The two chief methods of conveying instruction to the deaf and dumb are by means of the manual alphabet, and by training them to watch the lips of the teacher during articulation. There are two kinds of manual alphabet: the double-handed alphabet, where the letters are expressed by the disposition of th-ingers of both hands; and the single-handed, in which the letters are formed with the fingers of one hand. Particular gestures which are attached to each word as its distinctive sign are largely used. as are also real objects and models, pictures, etc. The method of teaching by articulation, the pupil learning to recognize words, and in time to utter them, by closely watching the motions of the lips and tongue in speech, and by being instructed through disgrams as to the different position of the vocal organs, is now receiving much attention, and has given excellent results, cases being known where persons have conversed with the deaf and dumb and remained ignorant that those to whom they were speaking were afflicted in this way. It is by no means a novel system, but of late it has vasily increased in favor with authorities. A new mode of teaching articulation has recently been brought into notice, consisting in the use of the system



### Deák

time much might probably be done to stay its progress. Desiness due to the disease of the nerve of bearing is usually very intense, comes on suddenly or advances very rapidly, and is not easily reached by treatment. As to other causes of complete deafness see Desf and Dumb.

Damb. (da-lk'), FERENCZ, a Hungarian statesman, born of a noble Magyar family, in 1808; died in 1876. He was elected to the National Diet in 1832, and became the leader of the liberal party. At the revolution of 1848 he be-came minister of justice, but retired when Kossuth obtained power. On the defeat of the patriots in 1849 he retired from public life, and did not return till the Franco-Austrian war gave him an op-portunity of serving his country. He is regarded as the master-spirit of the movement by which the ancient inde-pendence of his country was restored in 1867. Though the leader of the liberal party, he constantly refused office, but no change in the ministry was made with-

1867. Though the leader of the liberal party, he constantly refused office, but no change in the ministry was made with-out his consent. Deal (dēl), a seaport and watering place of England, County Kent, between the North and South Foreland, 72 miles E. by S. of London. Walmer Castle, Sandown Castle and Deal Castle are in the vicinity of the town. Boat-building and sail-making are carried on. There is a pier, but no proper harbor; the well-known Downs afford excellent anchorage. Pop. (1911) 11,297. Deal, the division of a piece of timber plank. The name deal is chiefly applied to boards of fir above 7 inches in width and of various lengths exceeding 6 feet. If 7 inches or less wide they are called battens, and when under 6 feet long they are called deal-ends. The usual thick-mess is 3 inches, and width 9 inches. The standard size, to which other sizes may be reduced, is 1½ inches thick; slit dcal, half that thickness. Deals are exported from Prussia. Sweden, Nor-way, Russia and British North Amer-ion.

Deal-fish, the Trachypterus Arcticus, Deal-fish, the Trachypterus Arcticus, sively compressed body, a denizen of the northern ocean and an occasional visitor to the coasts of Iceland. Norway and Britain: measures from 4 to 8 feet in length; is of a silvery color with minute scales, and has the dorsal fin extended along the whole length of the back. It is also known by the Scandinavian name Vaagmaer.

Dean of Guild

Dean (den; from L. deodnus, from decem, ten), an ecclesiastical dignitary, said to have been so called because he presided over ten canons or prebendaries; but more probably because each diocese was divided into deaneries, each comprising ten parishes or churches, and with a dean presiding over each. In England, in respect of their differ-ences of offices, denns are of several kinds. Desns of chapters are governors over the canons in cathedral and collegiate churches. The desn said chapter are the bishop's council to aid him with their advice in affairs of religion, and they may advise, likewise, in the temporal concerns of his see. Rural desns were originally beneficed clergymen appointed by the bishop to exercise a certain jurisdiction in districts of his diocese re-mote from his personal superintendence, but their functions have for many years become almost obsolete. Desn of the stowed on six clergymen of the Church of Scotland, who receive from the crown a portion of the revenues which formerly belonged to the chapel royal in Scotland, and which are now in the gift of the crown. Dean Forest. England, county of crown.

crown. Dean Forest, England, county of Comprised the greater part of the county west of the Severn, but is now reduced to about 22.000 acres, nearly one-half of which is enclosed, and was formerly appropriated for the growth of navy tim-ber, but is now mainly covered with coppices. This district is crown property, and the inhabitants (chiefly coal and iron miners) enjoy many ancient priv-ileges. In 1011 it contained a pop. of 54,-261. 261.

Dean of Faculty. —(1) In some universities, as that of London and those of Scotland, the chief or head of a faculty (as of arts, law, or medicine); in the United States, a registrar or secretary of the faculty in a department of a college, as in a medical, theological, or scientific depart-ment. (2) The president for the time being of an incorporation of barristers or law practitioners: specifically, the president of the incorporation of ad-vocates in Edinburgh. Dean of Guild, in Scotland, origin-ding and burgh who was head of the magistrate whose proper duty is to take care that all buildings within the burgh are sufficient, that they are erected agree-ably to law, and that they do not encroach either on private or public prop-

Death

erty.

erty. He may order insufficient build-ings to be taken down. **Death** (deth), is that state of a being, animal or vegetable, but more particularly of an animal, in which there is a total and permanent cessation of all the vital functions, when the organs have not only ceased to act, but have lost the susceptibility of renewed action. Death takes place either from the natural decay of the organism, as in old age, or from derangements or lesions of the vital organs caused by disease or injury. The signs of actual death in a human being are the cessation of breathing and of the signs of actual death in a human being are the cessation of breathing and of the beating of the heart; insensibility of the eye to light, pallor of the body, complete muscular relaxation, succeeded by a statue-like stiffness or rigidity which hasts from one to nine days; and decomposi-tion, which begins to take place after the rigidity has yielded, beginning first in the lower portion of the body and gradually extending to the chest and face. What becomes of the mind or thinking prin-ciple, in man or animal, after death, is a matter of philosophical conjecture or re-ligious faith. **Death**. CIVII., of old the entire loss or

**Death,** CIVIL, of old the entire loss or bearth, forfeiture of civil rights; the separation of a man from civil society, or from the enjoyment of civil rights, as by banishment, abjuration of the realm, ortening into a manufactory of

or from the enjoyment of civil rights, as by banishment, abjuration of the realm, entering into a monastery, etc. **Death**, DANCE OF, a grotesque allegor-figure of Death, generally in the form of a skeleton, is represented interrupting people of every condition and in all situations, and carrying them away; so called from the mocking activity usually displayed by the figure of Death as he leads away his victims. It was frequently drawn by artists of the mid-dle ages for cemeteries and cloisters. These representations were common in Germany, and also in France, where they received the name of *Danse Macabre*, the derivation of which has been much dis-puted. The series attributed to Hans Holbein, the vounger, was first published at Lyons in 41 plates, increased in a sub-sequent edition by 12 additional plates. A remarkable *Dance of Death* was painted, in fresco, on the walls of the churchyard in the suburb of St. John at Basel, which was injured, in early times, by being washed over, and is now entirely destroyed. This piece has been ascribed to Holbein; but it has long since been proved that it existed sixty years before this birth. **Death-rate**, the proportion of deaths

He may order insufficient build- calculated at so many per thousand per nnum.

Death's-head Moth, the largest lepidopterous insect found in Europe, and lepidopterous insect found in Europe, and systematically known by the name of Acherontia atropos. The markings upon the back of the thorax very closely re-semble a skull, or death's-head; hence the English name. It measures from 4 to 5 inches in expanse. It emits peculiar sounds, somewhat resembling the speak-ing of a mouse, but how these are pro-duced naturalists have not been able satisfactorily to explain. It attacks bee-hives, pillages the honey, and disperses the inhabitants. It is regarded by the vulgar as the forerunner of death or other calamity.

calamity. **Death Valley,** a narrow valley in the Panamint and Funeral Mountains, its central part covered with salt and 300 or 400 feet below sea level. It is considered the drivest and hottest place in 300 or 400 feet below sea level. It is considered the dryest and hottest place in the United States, its temperature having reached the extreme of 122° F. It is so called because a party of emigrants perished there in 1849. **Death-watch**, the popular name of the Anobium tessele-

tum, a coleop-terous insect that inhabits the wood-work the wood-work of houses. In calling to one a nother they make a peculiar ticking sound. which supersti-



D th-1

make a peculiar ticking so un d. which supersti-tion has inter-preted as a fore-runner of death. Débacle (da'ba-kl), a sudden breaking geologists for any sudden outbreak of water, hurling before it and dispersing stones and other débris. Debenture (de-ben'tfr), a deed-poll de la story deed) given by a public company in acknowledgmeut of borrowed money. It gives the holder the first claim for dividends, while the capital sum lent is usually assured on the security of the whole undertaking. With the deed, coupons or warrants for the payment of interest at specified dates are generally issued. Custom-house certi-debentures. debentures.

bis birth. Death-rate, the proportion of deaths of a town, country, etc. It is usually delivered the northern tribes from the

# De Bow

the Protestant church and conege. June factures are coarse woolens, leather, soap, A large trade

paved. Among the principal edinces are the Frotestant church and college. Manufactures are coarse woolens, leather, soap, tobacco-pipes, casks, etc. A large trade is done in cattle. Pop. (1910) 92,729.
Debs, EUGENE VICTOR, an American Terre Haute, Ind. A locomotive fireman, he rose to be president of the Railway Union. He was arrested in connection with the Great Northern Railway strike in 1804 and imprisoned for six months for contempt of court. On his release he took up the cause of Socialist party for the Presidency in 1904, 1908, and 1912. He was sentenced to ten years imprisonment in 1918 for obstructing recruiting and enlistment; released in 1921.
Debussy (då-bd-82'). (TAUDE ACHILLE, Vermin-en-Laye. August 22, 1862. He is the leader of the extremists of the young French school in finding new methods of expression, and has introduced a new system of color into music. His scale basis is of six whole notes, used frequently incomplete. His works, which are very numerous, include the operatic masterpiece, Pelléas et Melisande, Le Mer, Ariettes oubliecs, Images, incidental music to King Lear, the Petite Suite, Trois Nocturnes, etc. Died 1918.
Decade (dek'ad; Latin, decas, decadis; Greek dekas, from deka, ten) is sometimes used for the number ten, or for an aggregate of ten sides

ten years. **Decagon** (dek'a-gon), in geometry, a figure of ten sides. **Decaisnea** (de-ka'nē-a), a genus of plants, nat, order Lardiz-Decaisnea (diski hear), a kenne of ALPHONSE (1896-98), also an eminent abalacese, growing on the Himalayas 7000 botanist and member of the French feet above the sea. It sends up erect Institute. stalks like walking-sticks, bearing leaves Decandria (le-kan'dri-a). in the 2 feet long. Its fruit, which resembles Decandria (langean system of bot

oppression of Jabin, and secured a peace of forty years' duration. The triumphal ode (Judges, v) attributed to her is a remarkable specimen of Hebrew poetry. De Bow (de bo), JAMES D. B., born at Charleston, South Caro-statistican, he founded in 1867. An able God to Mosses on two tables of stone. statistics in the University of Louisiana. In 1850 he published Industrial Resources of the South and West. Debreczin (de-bret'sin), a town of the great central plain, 113 miles E. of single story: the streets broad and un-paved. Among the principal edifices are suggest. Its houses are mostly of a single story: the streets broad and un-paved. Among the principal edifies are the Protestant church and college. Manu-fuctures are coarse woolens, leather, soap, Oriental scenery and character, historical tobacco-pines. Cashs at A laws tendents and the story in the there, was born at Paris in 1803; partice and comments of the second commandment french single story: the streets broad and un-paved. Among the principal edifies are the Protestant church and college. Manu-fuctures are coarse woolens, leather, soap, oriental scenery and character, historical tobacco-pines. Cashs at A laws tendents and the story in the story in the coarse woolens, leather, soap, oriental scenery and character, historical tobacco-pines. Cashs at A laws tendents and the story in the story of the story in the story in the story of the story in the story in the story in the story is the story of the story in the story is the story is the story of the story is the story is the story of the story is the

Decamps (dé-kių), ALEXANDRE GAB-BRIEL, an emineut French painter, was born at Paris in 1803; killed while hunting at Fontainebleau in 1860. His paintings include pictures of Oriental scenery and character, historical pictures, genre pictures and animals. De Candolle (dé kāp-dol), AUGUSTIN De Candolle (YEAME, one of the most illustrious of modern botanists, whose natural system of classification, with some modifications is the

De Candolle (de kap-dol), AUGURTIN most illustrious of modern botanists, whese natural system of classification, with some modifications, is the one still generally used, was born at Geneva in 1778; died there in 1841. He took up the study of medicine at Geneva and Paris, where he attracted the notice of Cuvier and Lamarck, whom he aided in various scientific researches. After returning to his native city he again visited Paris, and took his medical degree, selecting as the subject of his thesis the medical prop-erties of plants. In 1804 he lectured in the College of France on vegetable physi-ology: and the following year published an outline of his course, under the title of Principes de Botanique, prefixed to the third edition of Lamarck's Flore Fran-caise. In this outline he haid the basis of the system of classification which he afterwards developed in larger and more celebrated works. In 1808 he obtained the chair of botany in the faculty of medicine at the University of Montpellier. In 1816 he returned to Geneva, where a chair of natural history was expressly created for him, and where he continued for many years to extend the boundaries of his favorite science by his lectures and publications. His chief works are: *L'Histoire des Plantee Granses. Regni* Vegetabilis systema Naturale (incom-plete). Théorie Elémentaire de Bota nique. Organographic Végétale, Physiolo-gie Végétale and Prodromus Rystematis Naturalis, the latter completed by his sor ALPHONSE (1940-93), also an eminent botanist and member of the French Institute. Decandria (de-kan'dri-s). in the Linnean avsterm of hed

# Decandria

any, the tenth class of plauts. The flowers have ten stamens, and one, two, three, or more pistils. It includes the pink, Lychnis, Saxifrage, etc. **Decapitation** (de-kapi-tā'shun), be-heading, capital pun-ishment inflicted by the sword, ax, or will time

Decapidation heading, capital pun-ishment inflicted by the sword, ax, or guillotine.
 Decapoda (de-kap'o-da; Gr. deka, ten, and pous, podoa, a was continued by Nerva, but refused by foot).—(1) The highest order of crusta-creans, so called from having five pairs of they are subdivided into Bra-chyura, the short-tailed decapods of the shorm, lobster, prawn, crayfish, etc.; and Anonura, of which the hermit-crea-is an example. (2) One of the two divisions of the dibranchiate cuttle-fishes the extremities.
 Decapolis (de-kap'o-lis), a district of aucient l'alestine contain-ing to cities, partly on the east, partly on the wast of the Jordan.
 Decatur (de-kaf'er), a city, county midway between Chicugo and St. Louis, on the Wabash, the Illinois Central, and ther rainflonds. It has over 80 manufactured out further Milen University.
 Decatur, a town, county sett of James Millken University.
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 Decatur, a town, county sett of Corpo and St. Louis of Lames Millken University.
 Decatur, a town, county sett of the unit is always multipiled by 10 or a system of school. Pop. (1920) 6150.
 Decatur, StrEFIEN, an able American Naval commander, born in T770. Killed in schol for a lower denomination. This storm has been rigidly carried out in France in all its weights and measures.

The perhaps a general title of honor borne by two, them. One of them distinguished him-the self by his opposition to the Roman arms during the reigns of Domitian and Trajan. be- He entered the province of Mœsia, de-pun-feated and killed Appius Sabinus, the , or Roman governor, and captured many im-portant towns and fortresses. Domitian leka. agreed to pay him a yearly tribute, which

Scott College and Donald Frazer High Scott College and Donald Frazer High School. Pop. (1920) 6150. **Decatur,** STEPHEN, an able American raval commander, born in 1779: killed in a duel in 1820. Among and the principle obtains in the counge the chief exploits of his life were the burn-ing of the frigate *Philadclphia* under the suns of the frigate *Philadclphia* under the suns of the British frigate *Macedonian* in 1812: his attempted escape from the 10, 100, 1000, 10000, the French, in their blockade of New York harbor. 1813-14: metric system, make use of the prefixes and his chastisement of the Algerines, trepidity and great resolution. **Deccazeville** (dékän), the section of India with coal and iron mines. Pop. 15,000. With coal and iron mines. Pop. 15,000. **Deccan** (dek'an), the section of India with coal and iron the section of India Material Scharber (de-kin-yci), the name of **Decceal** (de-kin), the name of **Decceal** (base b'a-his), the name of **Decceal** (Deck'an), th



# Decimation .

which is the metre, supposed to be the ten-millionth part of a quadrant of the earth's meridian (39.37 inches). The square of 10 metres, or square decamètre, called an ere, is the unit of surface meas-ure. The cube of the tenth part of the metre, or cubic décimètre, called a *kire*, is the unit of liquid capacity. The cube of the metre, called a *stère*, is the unit of solid measure. The weight of a cubic cen-timètre of distilled water at 39.2° Fahr. (4° Centigrade), called a gramme, is the unit of weight. The unit of moncy is the franc, which is divided into décimes and continues. centimes.

franc, which is divided into décimes and centimes. Decimation (de-si-mā'shun), the se-lection of the tenth man of a corps of soldiers by lot for punish-ment, practiced by the Romans. Some-times every tenth man was executed; sometimes only one man of each company, the tenth in order. The term is frequently used in a loose way for the destruction of a great but indefinite proportion of people, as of an army or inhabitants of a country. Decius (de-she-us), C. MESSIUS QUIN-TUS TRAJANUS, a Roman em-peror, who reigned from A. D. 249 to A. D. 251. He persecuted the Christians, and perished with his army in a battle near Abricium against the Goths. Deck (dek), a horizontal platform or floor extending from side to side of a ship, and formed of planking sup-ported by the beams. In ships of large size there are several decks one over the other. The quarter-deck is that above the upper deck, reaching forwards from the stern to the gangway. Decker, THOMAS. See Dekker, Deckartion (dek-la-rä'shun), an avowal or formal state-

Decker, THOMAS. See Dekker, Thomas. Declaration (dek-la-rä'shun), an avowal or formal state-ment; especially a simple affirmation sub-stituted in lieu of an oath, solemn affirma-tion, or affidavit, which modern law allows in a variety of cases, such as those which relate to the revenues of customs or excise, the post-office, and other depart-ments of administration. Justices of the peace, notaries, etc., are also empowered in various cases to take voluntary decla-rations in lieu of oaths, solemn affirma-tions and affidavits.—Declaration of In-dependence, the solemn declaration of the Congress of the United States of America, on July 4, 1776, by which they formally renounced their subjection to the govern-ment of Britain.—Declaration of Paris, an instrument signed at the Congress of Paris, 1856, and subsequently accepted by the chief powers. It declared (1) priva-teering to be abolished; (2) a neutral flag covers enemy's goods, with the excep-

tion of contraband of war; (3) neutral goods, except contraband of war, are not liable to capture under an enemy's flag; and (4) blockades, in order to be binding, must be effective.—Declaration of War, the formal notice of hostilities.—Declara-tion of London and instrument const tion of London, an instrument agreed upon, but not ratified, by ten maritime powers, codifying the principles of naval warfare.

Declaration of Independence. A famous state paper issued by the Amer-ican Continental Congress on July 4th, 1776. It was drawn up by Thomas Jefferson, as member of a committee ap-pointed for the purpose, and declared that the united colonies of America were 'Free and Independent States,' giving at length the reasons for this act, which was based on the unjust and oppressive treatment of the colonies by the king and parliament of England. of England.

**Deciension** (de-klen'shun), in gram-mar, the aggregate of the inflections or changes of form which nouns, pronouns, and adjectives receive in certain languages according to their meaning or relation to other words in a sentence, such variations being compre-hended under the three heads of number, gender, and case, the latter being the most numerous. See ('ase. **Declination** (dek-li-nB'shur)

henden under the inree nexts of numer, gender, and case, the latter being the most numerous. See ('asc. **Declination** (dek-li-nā'shun), in as-tronomy, the distance of a heavenly body from the celestial equator (equinoctial), measured on a great circle passing through the pole and also through the body. It is said to north or south according as the body is north or south of the equator. Great circles pass-ing through the poles, and cutting the equator at right angles, are called circles of declination. Twenty-four circles of declination, dividing the equator into twenty-four arcs of 15° each, are called hour circles or horary circles.-Declina-tion of the compass or needle, or magnetic declination, is the variation of the mag-netic needle from the true meridian of as place. This is different at different places, and at the same place at different fines. The declination at London was 11° 15′ E in 1576, 0° in 1652, 19° 30′ w. in 1760, 24° 27′ w., its maximum, in 1815, subse-quently changing eastward. **Declinometer** (dek-li-nom'e-tér), an infing the magnetic declination, and for observing its variations. In magnetic observatories there are permanent instru-ments of this kind, and they are now commonly made self-registering. Such instruments register the small hourly and

# **Declinometer**

#### Decomposition

annual variations in declination, and also

annual variations in declination, and also the variations due to magnetic storms. **Decomposition** (dekon-po-zish'un), CHEMICAL, is the separation of the constituents of a body from one another. Roughly speaking— for it is a difference of degree rather than of kind—decomposition is either artificial or spontaneous. Artificial de-composition is produced in bodies by the action of heat, light, electricity, or chemical reagents; spontaneous. In bodies which quickly undergo change in ordinary circumstances, unless special precautions are taken to preserve them. The bodies of the mineral, and the definite crystal-rized principles of the organic, world be-long to the first; organized matter, such as animal and vegetable tissues, organic fluids, such as blood, milk, bile, and the complex non-crystallized bodies, albumen, relatin, emulsin, etc., belong to the sec-cud. and.

(dek'u-rā-ted), in Decorated Style second style of pointed (Gothic) archi-



Decorated Style .- York Cathedral, West Front. tecture, in use in Britain from the end of the thirteenth to the beginning of the fifteenth century, when it passed into the

perpendicular. It is distinguished from the Early English, from which it was de-veloped, by the more flowing or wavy lines of its tracery, especially of its windows, by the more graceful com-binations of its foliage, by the greater richness of the decorations of the capitals of its columns, and of the moldings of its doorways and niches, finials, etc., and generally by a style of ornamentation more profuse and naturalistic, though perhaps somewhat florid. The most dis-tinctive ornament of the style is the ball-flower, which is usually inserted in a hollow molding. (See Ball-flower.) **Decoration Day** (d e k-o-räshun). **Decoration bay** (d e k-o-räshun). Cach year, is made possible through the organization of the Guand Army of the Republic, whose posts in every State of the Union keep records of soldiers' graves for the purpose. It is a legal holiday is several of the North and in parts of the Sonth. **Decorn** (de-koi'), a place into which

several of the States, and is observed throughout the North and in parts of the South. **Decoy** (de-koi'), a place into which to be caught. A decoy pond is kept only in a secluded situation. Several channels or pipes of a curved form, covered with light hooped network, lead from the pond in various directions. The wild fowl are induced to enter the wide mouth of the channel by tamed ducks, also called decoys, trained for the purpose, or by grain scattered on the water. When they have got well into the covered channel they are surprised by the decoy-man and his dog, and driven up into the funnel ease, but this is the general principle of the contrivance. **Decree** (de-krē), in general, an order.

cases, but this is the general principle of the contrivance. Decree (de-krē), in general, an order, edict, or law made by a superior as a rule to govern inferiors. In law it is a judicial decision or deter-mination of a litigated cause. Formerly, in England, the term was specially used for the judgment of a court of equity, but the word judgment is now used in reference to the decisions of all the divi-sions of the supreme court, as, also, in the l'nited States. The word is still used in Scotland for the final judgment of a court, frequently in the form decreet. Decree Nisi (në'së), literally, a 'd-term for the decree of divorce issued by a court on satisfactory proof being given in support of a petition for dissolution of marriage: it remains imperfect for

# Decrepitation

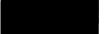
at least six months, and is then made and Cheshire: rises in Lake Bala, Meri-shown why it should not be made so. If miles below Chester. (8) A river of within the time appointed good reason Scotland, county of Kirkcudbright: rises can be shown for such a proceeding, the in Loch Dee, situated among the western decree misi will be reversed, or a further inquiry will be ordered. **Decorepitation** (d e-k r ep-i-tă'shun), sunder with a crackling noise on beng heated, or the crackling noise, attended with the flying asunder of their parts, sudden expansion of their substance by the heat, or by the expansion and was imprisoned on suspicion of practic-volatilization of water held mechanically within them. **Decresscendo** (d a-k r es h en'do), an ployed him on secret political missions.

The heat, or by the expansion and volatilization of water held mechanically within them.
Decressendo (dä-kre-shen'dõ), an italian term in music which denotes the gradual weakening of the sound, or the reverse of creacendo.
Decretals (de-krë'tals), a general name for the papal decrees, comprehending the rescripts (answers to inquiries and petitions), decrees (judicial decisions by the Rota Romana), mandates (official instructions for ecclesiastical officers, courts, etc.), edicts (papal ordinances in general), and general resolutions of the councils. The decretals form a most important portion of the Roman Catholic canon law, the authoritative collection of them being that made by the orders of Gregory IX and published in 1234.
Dedham, the seat of Norfolk Co., of Boston. It has manufactures of woolen goods, carpets, machinery, pottery, etc. It was the birthplace of Fisher Ames. Pop. (1920) 10,702.
Dedication (ded-i-ka'shun), the act thing to a divine being, or to a sacred use, often with religious solemnities. Also an address prefixed to a book, and formerly inscribed to a patron, testifying respect and recommending the work to his protection and favor: now chiefly addressed to friends of the author, or to public characters, simply as a mark of affection (de-duk'shun), in reason

streams is between 80 and 90 miles long. Dec, JOHN, an English mathematician 1527; died in 1608. In early life he suc-cessfully devoted much of his time te mathematical, astronomical and chemi-cal studies. In the reign of Mary he was imprisoned on suspicton of practic-ing the 'black art'; but was in favor with Elizabeth, who is said to have em-ployed him on secret political missions, and paid him a fixed salary. In 1581, along with a man named Kelly, he visited several of the continental courts, pretending to raise spirits. In 1585 he obtained from the queen the wardenship of Manchester College. Here he resided for nine years, and then returned to his old residence at Mortlake, where he died, leaving behind him many works, partly of a scientific character, partly dealing with the occult sciences, invocation of spirits, etc. spirits, etc.

for eccessing contribution contracter, partly dealing edicts (papal ordinances in general), and general resolutions of the councils. The decretals form a most important portion of the Roman Catholic canon law, the authoritative collection of them being, and published in 1234.
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Deemster



# courts weekly at Douglas, Ramsey, and

other places. Deep Sea Exploration. Investiga-tion of the ocean. The

courts weekly at Douglas, Ramsey, and other places. Deep Sea Exploration. Investiga-tion of the deeper areas of the ocean. The method employed by sounding with ap-paratus fitted to bring up specimens of organic life and of the sea bottom. American explorations were conducted from 1872 onwards by the U. S. Coast Survey and the Fish Commission, while several European nations have engaged in similar work. The most important of these explorations was that of the Eng-lish ship *Challenger* (1872-76), which widely traversed the Atlantic and Pacific, and brought up numerous and extraor-dinary specimens of deep sea animal life. The sea-bottom was also examined and much learned concerning its make-up and conditions. One interesting feature of the results is that many of the ani-mals found are phosphorescent, them-selves lighting up their dark abode. Deer (der), a general name for the animals constituting the family Cervide, of which the typical genus is *Cerrus*, the stag or red deer. The distinguishing hermeters of it have solid branching horns which they shed every year, and eight cutting teeth in the lower jaw and none in the reindeer on that of the female, The forms of the horns or anthers and in the reindeer on that of the female, the stag or red into broad palms which send out sharp snags around their outer edges; sometimes they divide fan-tastically into branches, some of which arts reared upwards in the air; or they and in a stiff erect posture. They are used as defensive and offensive weapons, and grow with great rapidity. There are nany species of deer, as the red back, the reindeer, the moose, the elk, (See the separate articles,) Deer are poetty whely distributed over the world, though there are none in Australia and few in Africa, where the antelopes (whice here are none in Australia and few in Africa, where the antelopes (whice here are none in Australia and few in Africa, where the antelopes (whice here are none in Australia and few in Africa, where the antelopes (whice here are none in Australia a sesticated.

Deer Forest, an extensive tract of mountainous land set apart for the protection of wild deer, especially red deer, which are used for purposes of sport. In Scotland, to which arch torests are chiefly confined, some 2000000 acres, distributed over nine or

ten counties, are devoted to deer forest. The land is usually, in by far the greater part, of the wildest and least productive kind, but of course may yield large numbers of grouse and other game as well as deer. A great many of the for-ests are rented by sportsmen from the proprietors, and the rents drawn are considerable, ranging from £1000 to £5000, and even much more, per annum for a single forest. Crofters have often been removed from their holdings in order that the land might be incorpo-rated in some deer forest, and this has been regarded as a great grievance. On the other hand, the lessers of the forests have expended large sums of money in the country, and the rents paid the pro-prietors have enabled them to do the same. same.

Deer-grass, the name of several North American plants of the genus Rhexia.

Deer-mouse, the common name of belonging

Deer-mouse, the common name of to the genus Mcrionce, an American groups of rodent animals allied to the mice and the jerboas of the Old World. The deer-mouse of Canada (M. Canadarsis) is a pretty little animal of the size of a mouse, with very long hind-legs and a tail, and very short forelegs. Deer-stalking, an exciting but la-bear is a pretty little animal of the size of a mouse, with very long hind-legs and a tail, and very short forelegs. Deer-stalking, an exciting but la-bear is a pretty little animal of the size of a mouse, with very long hind-legs and a tail, and very short forelegs. Deer-stalking, an exciting but la-bear is a pretty little animal of the size of a mouse, with very long hind-legs and a tail, and very short forelegs. Deer-stalking, an exciting but la-bear is a pretty little animal of the same, their far-sightedness and keen sense of smell they have to be approached by cautious manœuvring before a chance of obtaining a shot occurs. Great pa-tience and tact and a thorough knowledge of the ground are essential to a good stalker, who has to undergo many dis-comforts in crouching, creeping, wading through bogs, etc. Advance from higher to lower ground is usually made, since the deer are always apt to look to the low ground as the source of danger. 'Deer-driving' towards a point where the shooters are concealed is often prac-ticed, but is looked on as poor sport by the true deer-stalker. Deformation (def-a-mä'shun), the the true deer-stalker

the true deerstalker. Defamation (def-a-mā'shun), the malicious uttering of slanderous words respecting another which tend to destroy or impair his good name, character, or occupation. To con-stitute defamation in law the words must be spoken maliciously. Defamation is punishable either by action at common law or by statute. Default (de-falt'), in law, signifies generally any neglect or omission to do something which ought to be done. Its special application is to the non-appearance of a defendant in cont

# Defendant

when duly summoned on an appointed day. If he fail to appear judgment may be demanded and given against him by default.

default. **Defendant** (de-fen'dant), in law, the party against whom a complaint, demand, or charge is brought; one who is summoned into court and defends, denies, or opposes the demand or charge, and maintains his own right. The term is applied even if the party admits the claim. Defendence of the Traith (Fided

admits the claim. **Defender of the Faith** (Fidei Defen-sor), a title belonging to the King of Eng-land, as Catholicus to the King of Spain, Christianissimus to the King of France, etc. Leo X bestowed the title of Defender of the Faith on Henry VIII in 1521, on account of his book against Luther, and the title has been used by the sov-errigna of England ever atnce.

and the title has been used by the sov-ereigns of England ever since. **Deffand** (def-än), MARIE DE VICHY-CHAMROND, MARQUISE DU, a conspicuous character among the French literati of the eighteenth century, born in 1697; died in 1780. In 1718 she married the Marquis du Deffand, from whom she separated after ten years. Dur-ing the latter part of her long life she became the center of a literary coterie, which included Choiseul, Boufflers, Mon-tesquieu, Voltaire, D'Alembert. David Hume and Horace Walpole. Her Letters to Horace Walpole and Correspondence with D'Alembert, Montesquieu, etc., were published. published.

published. Defiance (de-ff'ans), a city, county seat of Defiance Co., Ohio, on Maumee River and Wabash & Erie Canal. It has manufactures of machinery, motor trucks, steel products, etc. Seat of Defiance College. Pop. (1920) 8876. Defilading (de-fl-läd'ing), that branch of fortification the object of which is to determine (when the intended work would be commanded by

nal definition explains the meaning of a term by some equivalent word or expres-sion supposed to be better known. A real definition explains the nature of the thing. A real definition is again acci-dental, or a description of the accidents, as causes, properties, effects, etc.; or essential, which explains the constituent parts of the essence or nature of the thing. An essential definition is, more-over, metsphysical or logical, defining 'by the genus and difference,' as it is called; as, for example, 'a plant is an organized being, destitute of sensation,' where the part first of the definition states the genus (organized being), and the latter the difference (destitute of sensation, other organized beings possess-ing sensation); or physical, when it distinguishes the physical parts of the ressence; thus, a plant is distinguished by the leaves, stalk, root, etc. A strictly accurate definition can be given of only a few objects. The most simple things are the least capable of definition, from the difficulty of finding terms more simple and intelligible than the one to be defined. **Defoe** (defo'), DANNEL, an English nal definition explains the meaning of a

Alimpie and interingione that the out to be defined. **Defoe** (dě-fo'), DANIEL, an English fertility, was born in 16401 in London, where his father, James Foe, carried on the trade of a butcher. In 1685 he joined the insurrection of the Duke of Monmouth, and had the good fortune to escape; after which he made several un-successful attempts at business, and at last turned his attention to literature. In 1701 appeared his satire in verse, *The True-born Englishmen*, in favor of William III. As a scelous Whig and Dissenter he was frequently in trouble. For publishing *The Shortest Way With the Dissenters* (1702), the drift of which was misunderstood by both Churchmen and Dissenters, he was pilthe u. by Defilading (dd-fi-lading), that branch the Dissenters (1702), the drift of of fortification the object which was misunderstood by both of which is to determine (when the Churchmen and Dissenters, he was pil-intended work would be commanded by loried and imprisoned in Newgate, obeminences within the range of firearms) taining his liberty through the influence taining his is properties; an explanation of the signification of a word or divine right. In 1707 he was in Scotterm, or of what a word is understood land, which he also visited several times to express. Logicians distinguish definitions into nominal and real. A nomi-

power. In 1719 appeared the most popu-lar of all his performances: The Life and Surprising Adventures of Robinson and Surprising Adventures of Robinson Crusse, the favorable reception of which was immediate and universal. The suc-cess of Defoe in this performance induced him to write a number of other lives and adventures in character; as Moll Flan-ders, Captain Singleton, Roxana, Duncan Campbell, The Memoirs of a Caralier, Journal of the Plague, etc. He died in London in 1731.

Deforcement (de-förs'ment). in law, the holding of lands or tenements to which another person has a right; a general term including any species of wrong by which he who has a right to the freehold is kept out of possession. In Scots law, it is the resisting of an officer in the execution of law.

resisting of an officer in the execution of law. De Gerando (dé-zhā-rāŋ-dō), Josern MARIE, BABON, a French philosopher and statesman, born at Lyons in 1772; died in 1842. After serving in the army for some time he took office as minister of the interior under Lucien Bonnparte, and was afterwards engaged in the organization of Tuscany and the Papal states on their union to France. In 1819 he commenced a course of lec-tures in the Faculté de Droit, in Paris, on public and administrative law. He was raised to the peerage in 1837. De Gérando has acquired great fame by his philosophical writings. His principal works are Des Nignes et de L'Art de Penace, De la Génération des Connais-sances Humaines, Histoire comparée des Nystêmes de Philosophie, Du Perjec-tionnement Moral et de l'Education ae Noi-méme, De l'Education des Nourds-muets de Naissance, and De la Bien-faisance Publique. Deggendorf (deg'en-dorf), a town of Bavaria, on the Dan-ube, with manufactures of cloth, etc. Pop. (1906) 7154.

**De Gourmont** (dé-gör'mon), REMY, French poet, born in 1858; died in Paris September 28, 1915, He was editor of the Mercure de France and a director of the Récue des Idees.

**Degradation** (de-gra-da'shun), the ecclesiastical consure by which a clergyman is divested of his holy orders. The canon law distin-guishes degradation into two sorts; the one summary, by word only; the other solemu, by stripping the person degraded of those ornamonts and rights which are of those ornaments and rights which are the ensigns of his order or degree. The term is also applied to the deprivation of offices not ecclesiastical.

Degree (de-grö'), in geometry or of the circumference of any circle, the circumference of every circle being sup-posed to be divided into 800 equal parts called degrees. A degree of latitude is the 340th part of the earth's circum-ference north or south of the equator-measured on a great circle at righ 7 angles to the equator, and a degree o-longitude the same part of the surfac-east or west of any given meridian measured on a circle parallel to the equa-tor. Degrees are marked by a small near the top of the last figure of the number which expresses them; thus 45 is 45 degrees. The degree is subdivided into sixty equal parts called minutes and the minute is again subdivided into sixty equal parts called minutes and the minute is degrees, 12 min-utes and 20 seconds. The magnitude or quantity of angles is estimated in de-grees and parts of a degree, because equal angles at the center of a circle are subtended by similar arcs, or arcs containing the same number of degrees and parts of a degree. An angle is said to be so many degrees as are contained in the arc of any circle intercepted be-tween the lines which contain the angle. the angular point being the center of the circle. Thus we say an angle of 90, or one of 45° 24'. It is also usnal to say that a star is elevated so many degrees above the horizon, or declines and to say that a star is elevated so many the circle. Thus we say an angle of 90, or one of 45° 24'. It is also usual to say that a star is elevated so many degrees above the horizon, or declines so many degrees from the equator, or such a town is situated in so many degrees of latitude or longitude. The length of a degree depends upon the radius of the circle of the circumforence of which it is a part, the length heing greater the greater the length of the radius. Hence the bength of a degree of longitude is greatest at the equator, and diminishes continually towards the poles, at which it = 0. Under the equator a degree of longitude contains 60 geographical, and 69.16 statute miles. The degrees of lati-tude are found to increase in length from the equator to the poles, owing to the figure of the earth. Numerous meas-urements have been made in order to determine accurately the length of de-grees of latitude and longitude at differ-ent parts of the earth's surface and thes settle its dimensions and magnitude. When the French determined to estab-line their system of measures and When the French determined to estab-lish their system of measures and weights based upon the metre (see Deri-mal System), they settled that this basis was to be the ten-millionth part of the distance from the equator to the pole,

#### Degree

which distance had to be found by accu-rate measurement. Ten degrees of lati-expression is taken from several apostoli-tude ware accordingly measured, from Dunkirk to Formentera, one of the Balearic islands. Similar measurements having been made in Britain, the length of a votal arc of twenty degrees has been found. Many measurements have seven centuries B.C., rose from a private also applied to the divisions, spaces, or Empire. By acting as arbitrator in the intervals marked on a mathematical, disputes which took place in his own meteorological, or other instrument, as a vicinity, the fame of his justice induced thermometer or barometer.

meteorological, or other instrument, as a thermometer or barometer. **Degree**, in universities, a mark of dis-dents, members, or distinguished strang-ers, as a testimony of their proficiency in the arts or sciences, or as a mark of respect, the former known as ordinary, the latter as horcrary degrees. The de-grees are bachelor, master and doctor, and are conferred in arts, science, medi-cine, divinity and music. Degrees are conferred on women by London Univer-sity. Cambridge admits them to the tripos examinatio.s, and Oxford to most of its honcr schools, but neither grants at present the stamp of a degree. St. Andrew's University grants the title 1.1.A. to women who pass in four sub-jects; the standard of attainment being the same as that required for the M.A. degree, the books prescribed and the questions set being practically identical. In the United States universities similar degrees are given and women frequently receive them. **Degree**, is algebra, a term used in press what is the highest power of the unknown quantity. Thus, if the index of that power be 3 or  $\pm (x^a, p^a)$ , the equa-tion is respectively of the third or fourth degree. **Dehra** (da'ra), a town of Hindustan.

degree.

tion is respectively of the third or fourth degree. Dehra (dā'ra), a town of Hindustan, fully situated, with military canton-ments, English, Presbyterian and Roman Catholic churches, and an American mis-sion. Pop. 28(95. Dehra Doon (dā'ra dön), a beauti-the Meerut division of the Northwestern Provinces, Hindustan, at the 8, w. base of the lowest and outermost ridge of the Homerica with Lafayette in 1777, was Himalayas. It is bounded on the N, by the Jumna, N. E. by the mountains of Gurwhal, from 7000 to 3000 feet high. Its length from 8, E. by the Ganges, s. w. by the Sewalik from 5, E. to X. W. is about 45 miles. Dei gratia (da'i gra'sbi-a; 'by the grace of God'), a formula in 1980 or 1610; died in 1966. His best-

cal expressions in the New Testament. Deinosauria. See Dinosauria. Deioces (d'o-sès), an ancient person-age who flourished a bout seven centuries B.C., rose from a private station to be the founder of the Median Empire. By acting as arbitrator in the disputes which took place in his own vicinity, the fame of his justice induced the Medes to choose him for their king after their revolt from the Assyrians. He built the city of Ecbatana, in which he resided: after a reign of thirty-five years he left the throne to his son Phraortes. Deira kingdom, stretching from the Tees to the Humber, and extending in-and to the borders of the British realm of Strathelyde. With Bernicia it formed the Kingdom of Northumbria. Deism (défism: Lat. Deus, God), a opposed to Atheism (Gr. a, not, and Theos, God), recognizes a great First Cause: as opposed to Pantheism (Gr. pan, all, Theos), a Supreme Being dis-inct from nature or the universe; while, as opposed to Theism, it looks upon God as wholly apart from the concerns of this world. It thus implies a disbelief in rev-elation, skepticism as regards the value of miraculous evidence, and an assump-tion that the light of nature and reason are the only guides in doctrine and prac-tice. It is thus a phase of Rationalism. In the eighteenth there were a series of writers who are spoken of distinctively as the English deists. They include Cou-lins, Toland, Tindal, et: Dejanira (dej-an'rà), in Greek myth-or Heracles (which sec). DEKALD (de-kalt'), a city of Dekalb (Co., Hlinois, S8 miles w, of Chicago. It is the seat of the Northern llinois Normal School, and manufactures wire, aboes, gloves, implements, planos, motor trucks, wagons, etc. Pop. 7871. The Kalb Johny. & German soldier.

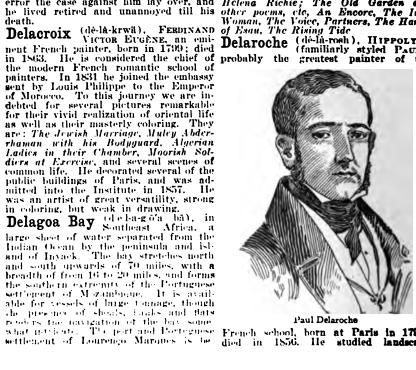
Dekker

#### Dekker

known poems are: Lof der Geldzucht, a satire on avarice; and Puntdichten. Dekker, DECKER, or DECKAR. THOMAS, cellaneous writer, born about 1570; died in 1641. He was a voluminous writer, and besides a great number of pamphlets he wrote many plays which give a vivid picture of contemporary life in London. De Kouran REGINALD, an American

he wrote many plays which give a vivid picture of contemporary life in London. De Koven, REGINALD, an American composer (1861-1920), born in Middletown, Conn. He wrote many light operas, notably Robin Hood, The Feneing Master, Rob Roy, The High-wayman, Happyland, The Student King, Rip Van Winkle, etc. De la Beche, SIR HENRY. See Delaborde (delabord), HENRY de la. Delaborde (delabord), HENRY as Frank general, born at Dijon in 1764; died in 1833. He distinguished himself in the republican armies; fought through the whole of the Napoleonic wars, and was ennobled in 1807. After the second resto-ration he was placed on the list of the officers who were to be criminally prose-cuted, but in consequence of a technical error the case against him lay over, and he lived retired and unannoyed till his death. death.

Ing constantly developed as a place of trade. A railway runs from the city to Pretoria. 200 miles distant. During the Boer war Lorenço Marques was the only port available for the Boers. Delambre (della-br), JEAN BAF-TISTE JOSEPH, a French astronomer and pupil of Lalande, born at Amiens in 1749; died in 1822. His stud-ies were not directed to astronomy until his thirty-sixth year, but he rapidly ac-quired fame, and produced numerous works of great value. He was engaged with Méchain from 1792 till 1799, in measuring an arc of the meridian from Barcelona to Dunkirk. In 1807 he suc-ceeded Lalande in the Collège de France, and wrote his Traité d'Astronomie Moderne (1821), two vols., and Hist. de l'Astronomie Moderne (1821), two vols., and Hist. de l'Astronomie Moderne (1821), two vols., and Hist. de l'Astronomie Moderne omie du 18me Siècle (two vols.). Deland (de-land'), MABGABET W., burgh, Pennsylvania, in 1857. She wrote old (hexter Tales: The Auskening of Helena Richie; The Old Garden sud other poems, cie, An Encore, The Irons Woman, The Voice, Partners, The Hands of Esau, The Rising Tide Delaroche (de-land'), MIPPOLYTE (familiarly styled Part), probably the greatest painter of the



1797: studied landscape

# Delavigne

Delavigne plaining for a short time, but applied himself afterwards to historical painting, and rapidly rose to eminence. His sub-jects are principally taken from French and English history. Among them may be mentioned: Joan of Are interrogated is Prison by Cardinal Beautort; the Death of Queen Elizabeth, a work greatly admired by French and generally repro-bated by English critics; The Chidren of Edicard IV in the Tower; Cromcell con-templating the Dead Body of Charles I; The Execution of Lady Jone Grey; and the Hemicycle, an immense work painted in oil on the wall of the École des Beaux Arts, Paris. It represents an assemblage of the great painters, sculptors and archi-tects from the days of Giotto to those of Lesueur, and has been admirably en-graved by Dupont. His merits consist in correct drawing, appropriate expres-sion, harmonious color, and great dis-tinctness and perspicuity in treatment, rendering the story of his pictures at orce intelligible. He held a middle place between the classical and the romantic schools, and was regarded as the leader of the so-called 'eclectic school.'' Defavigne (de-lA-vēn), JEAN FRAN-poét and dramatist, born at Havre in 1793; died in 1843. At the restoration he published a set of elegies, entitled Les Messéniennes, which deplored the faded glories of France. He produced in 1819 his tragedy of Les Vépres Siciliennes; Les Comédiens appeared in 1820, and the tragedy of Les Vépres Siciliends; Ma-rino Faltero; and the dramas of Lowis Mi-mentioned : L'Ecole des Vieillards; Ma-rino Faltero; and the dramas of Lowis Mi-mentioned in La Porisienne and La Ventin Durward—and Don Juan d'Au-Forno Faltero; and the ballad La Toiletto

Bay and by the ocean, south and west by Maryland; area, 2050 square miles. It is divided into three counties, Kent, Newcastle and Sussex, and has nearly the form of a right-angled triangle (hence its popular name 'the Diamond State'). In the south and towards the coast the surface is very level, but the north part is rather hilly. An elevated swampy tableland towards the west traverses the State, forming the watershed between the Chesapeake and the Delaware bays. A great part of the soil is fertile, and agri-culture is in a flourishing state. Fruit cultivation (peaches, apples, berries) is largely engaged in, and the canning and drying of fruits are important industries. There are also extensive and varied man-ufactures. A ship canal connects Chesa-peake River and Delaware Bay. There are about 300 miles of railway. Wil-mington is the chief manufacturing and commercial town. The capital is Dover. Delaware, though slave-holding, remained loyal to the Union at the secession of the Southern States. Pop. (1900) 184,735; (1910) 202,322; (1920) 223,003. **Delaware**, Delaware Co., Ohio, 24 miles N. of Columbus. Seat of Ohio Wes-leyan University. It has car shops, min-eral springs, and manufactures of furni-

miles N. of Columbus. Seat of Ohio Wes-leyan University. It has car shops, min-eral springs, and manufactures of furni-ture, automobile tops, shoes, stoves, bridges, etc. Pop. (1920) 8756. bridges, etc. Pop. (1920) 8708. Delaware Bay, an arm of the At-tween New Jersey and Delaware, 11 miles wide at entrance, between Capes May and Henlopen, 50 miles long. A breakwater near Henlopen provides a safe barbor harbor.

rino Faltore, in alter at a safe rino Faltore, in alter at a safe design of the design

#### Del Credere

<text><text><text><text><text><text><text><text><text> Delille fourteeath century, is now considered coarse, but was among the best of its day. Delfzyl (delfzill', a strongly fortified town and port of North Hol-land, province Grouigen, on the Dollart. Pop. 7355. Delhi (del'6'), a city of Hindustan, in the Punjah, anciently capital of the Fatan and Mogul empires, about 554 miles N. W. Calcutta. At the durpar in 1911, when George V was made fim-peror of Tudia, he changed the capital from Calcutta to Delhi. It was at one time the largest city in Hindustan, cover-ing a space of 20 square miles, and havin : a population of 2,000,000. A vast tract covered with the ruins of palaces, pavi-lions, baths, gardens, mausoleums, etc., marks the extent of the ancient me-tright bank of the Junna, and is surround-ed on three sides by a lofty stone wall 54 miles long, strengthened by the Brit-ish at the beginning of the last century with a ditch and glacis. The palace or residence of the Great Mogul, built by Shah Jehan, commenced in 1631, and now known as 'the fort,' is situated in the east of the city, and abuts directly on the river. It is surrounded on three sides by an embattled wall of reddish sand-stone nearly 60 feet high, with round towers at intervals, and a gateway on the vest and south. Since the mutiny in 1857 a great portion has been demolished in order to make room for military bar-racks. One of the most remarkable ob-ipets in the city is the Jamma Musjid or (freat Mosque, a magnificent structure in the Byzantine-Arabic style, built by the Emperor Shah Jehan in the seventeenth endorshed as a college; the Residency, and a Protestant church. The East In-dian Railway enters the city by a bridge over the Jumna. The S. w. quarter of the town is densely occupied by the shops and dwellings of the native popu-lation; the streets are narrow and tor tuous, but some of the main thorough-fares of the city are splendid streets, the chies heing the Chandni Chauk, or 'Sil-ver Street'. During the mutiny Delhi was seized by the Sepoys, who held pos-many atowities were

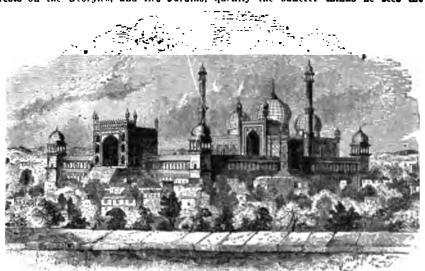
# Deliquescence

Delitzsch

Academy. He became professor of Latin poetry in the College of France, and of belles-lettres at the University of Paris. Though an adherent of the old system, Robespierre spared him on every occasion. At his request Dellile wrote the Dithyrambe sur l'Immortalité de l'Ame, to be sung on the occasion of the public acknowledgement of the Deity. In 1704 he withdrew from Paris, but returned again in 1801, and was chosen a mem-ber of the Institute. He spent two years in London, chiefly employed in translat-ing Paradisc Lost. His reputation mainly rests on the Georgics, and Les Jardins.

the body, as the heart; it may be caused by long-continued and exhausting pain, and by a state of inanition of the nerv-ous system.

Delirium Tremens, an affectior which arises from the inordinate and pro-tracted use of ardent spirits. It is there-fore almost peculiar to drunkards. The principal symptoms of this disease, as its name imports are delirium and trembling. The delirium is a constant symptom, but the tremor is not always present, or, if present, is not always perceptible. Fre-quently the sufferer thinks he sees the brain



Great Mosque at Delhi, viewed from Northeast.

Great Mosque at Delhi, viewed from Northeast. a didactic poem. Other works are most frightful, grotesque, or extraordinary L'Homme des Champs, La Pitie, Les objects, and may thus be put into a state Trois Règnes de la Nature, La Conversa-tion, l'Encide de Virgile, etc. Deliquescence (de l-ique s'en s), a the solid to the liquid state, by the absorption of moisture from the atmos-phere. It occurs in many bodies, such accaustic potash, carbonate of potassium, accaustic potash, carbonate of potassium, accaustic of potassium, chloride of zine, et. Delirium (de-lir'ium), a temporary ther of a febrile or of an exhausting nature. It may be the effect of disor-dered or inflammatory action affecting the south active diseases in other parts of 3-3

eyriology, and is professor of that subject at Leipzig. **Della Cruscans** (del'a krus'kans), a coterie of English poetasters resident for some time in Florence, who printed inferior senti-mental poetry and prose in 1785. Coming to England, they communicated the in-fection to minds of a like stamp, and the newspapers of the day, chiefly the World and the Oracle, began to give publicity to their lucubrations. They were extin-guished by the bitter satire of Gifford's Bariad and Mæviad. Mrs. Piozzi, Bos-well, Merry, Cobb, Holcroft, Mrs. H. Cowley and Mrs. Robinson were the leaders. They took the name from the Accademia Della Crusca in Florence. **Della Robbia** (del'là rob'i-A) LUCA, torn in 1400 at Florence; died in 1482. He was distinguished for his work both in marble and bronze, and also for his neliefs in terra-cotta coated with enamel, & kind of work named after him. Other thembers of the family distinguished them-belves in the same line, especially AN-DELA Robbia (Ware terra-cotta

Löbber, 15 miles north of Leipzig, with manufactures of woolens, and several im-Academy and became an officer in the portant annual fairs. Pop. 10,479. Delitzsch, FRANZ, a German theo-ition to northern Greenland in 18.4. Bill3. He was a strong supporter of the Jeannette on an expedition to ex-strict orthodox theology; became pro-plore the Arctic Ocean north of Siberia. fessor of theology at Rostock in 1846, at The ship was crushed in the ice June 12. Erlangen in 1850, and at Leipzig in 1867. Is 21. Best and several commentaries. Digical works and several c

Bouthern Africa. Delorme (dé-lorm), MARION, a cel-brated French beauty who reigned under Louis XIII. The date of her birth is stated at 1611, 1612 and 1615. Her beauty and wit soon made her house the rendezvous of all that was gallant and brilliant in Paris. She espoused the side of the Frondeurs, and Mazarin was about to have her arrested when her sudden death in 1650 termin-ated her short career. The legend is current in France that the death and funeral was a mere pretense; that she escaped to England, returned to Paris, and after marrying three husbands lived to the age of 125). Victor Hugo has taken her as the subject of one of his dramas. dramas.

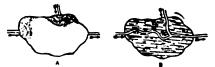
Della Robbia (della roble) 100%, to the age of 120, victor fugo has form in 1400 at Florence; died in 1482, the was distinguished for his work both in marble and bronze, and also for his reliefs in terra-cotta coated with enamel, kind of work named after him. Other inembers of the family distinguished them-belves in the same line, especially AN-para (1435-1525) nephew and pupil of truea. Della Robbia Ware, terra-cotta thickly enameled with tin-glaze; made at thickly enameled with tin-glaze; made at Florence (chiely 1450-1530); in France (1530-1567); so called from the name of the above artist. Dellys (delle?), a seaport of Algeira. The climate is subbrows, and there is a florence (chiely 1450-1530); in France the climate is subbrows, and there is a florence (chield from the name of the above artist. Dellys (delle?), a seaport of Algeira. The climate is subbrows, and there is a florence (delle?), a seaport of Algeira. The climate is subbrows, and there is a Minor, etc. After the destruction of trade in grant, oil and salt. Pop. 14,070. Corinth (146 a.c.) the rich Corinthians Delolme (delled), JEAN LOUIS, a fled thither, and made Delos the seat of the dimerability of the island was the Temple of the dimerability of the island was the Temple of the dimerability of the island was the Temple of the dimerability of the island was the Temple of the dimerability of the island was the Temple of the part which he took in its internal commotions obliged him to repair to the pland, where he passed some years in scelebrated Constitution de TAngle-the render of Constitution de TAngle-terre. De Long, GORGE WASHINGTON, Are-in bronze and silver. Delos, called Dii

# Delphi

**Delphi** (del'fl), an ancient Greek town, originally called Pytho, the seat of the famous oracle of Apollo, was situated in Phocis, on the southern side of Parnassus, about 8 miles N. of the Corinthian Gulf. It was also one of the meeting places of the Amphictyonic Council, and near it were held the lythian games. The oracles were de-livered by the mouth of a priestess who was seated on a tripod above a subter-ranean opening, whence she received the vapors ascending from beneath, and with them the inspiration of the Delphian god. The oracular replies were always obscure and ambiguous; yet they served, in earlier The oracular replies were always obscure and ambiguous; yet they served, in earlier times, in the hands of the priests, to reg-ulate and uphold the political, civil and religious relations of Greece. The oracle was celebrated as early as the ninth cen-tury B.C., and continued to have import-ance till long after the Christian era, be-ing at last abolished by the emperor Theo-dosius. Persons came to consult it from all quarters, bestowing rich eifts in redosus. Persons came to consult it from all quarters, bestowing rich gifts in re-turn. The splendid temple thus possessed immense treasures, and the city was adorned with numerous statues and other works of art. It first lost its treasures in 357 B.C., when seized by the Phocians; it was afterwards plundered by Sulla and by Nero Nero.

neighboring isles pay it summer visits known as the Delsarte system, is still with their flocks. Abundant ruins of its popular in the United States, and is former magnificence yet exist, and ex-applied to the promotion of health by a cavations resulting in interesting archeso-series of bodily movements held to yield logical discoveries have recently been a harmonious development of the body made. Delphi (del'fl), an ancient Greek pression.

**Delta** (del'ta), the name of the Greek letter  $\Delta$ , answering to the English D. The island formed by the alluvial deposits between the mouths of the Nile, from its resemblance to this letter, was



Stages in the filling up of a lake. In a two streamlets are represented as pouring their 'deltas' into a lake. In a they have filled the lake up, converting it into a meedow across which they wind on their way down the valley. named Delta by the Greeks; and the same name has since been extended to those alluvial tracts at the mouths of great rivers which, like the Nile, empty themselves into the sea by two or more diverging branches.

Delta Metal, a brass, or alloy of which manganese has been added. It is used for parts of machinery and for orna-mental work.

Deltoid Muscle (del'toid), a mus-cle of the shoulder which moves the arm forwards, upwards

it was afterwards plundered by Sulla and by Nero. Delphin Classics, a collection of Louis XIV, edited by Bossuet and Huet. Delphinium (del-fin'i-um), a genus of Ranunculacez, com-prising the larkspurs, stavesacre, etc. See Larkspur. Delphos (del'fos), a city of Allen Co., to the queen, a situation he held for bio, on Miami Canal, 14 Society of London, and appointed reader four, formiture, printing presses, etc. Pop. (1920) 5745. Del Rio (del röb), a city, county seat Rio Grande, in a fruit and wool district. Pop. (1920) 10,589. Delsarte (del-sart: FRANCOIS A. N. Dista dia tracher of dramatists and a singer of declamatory music, and pub-lished works on vice culture and several words. The system founded by him, great iniquity of mankind. It was pro-



duced, according to Genesis, by a rain of forty days; and covered the earth 15 cubits above the tops of the highest mountains, and killed every living crea-ture except Noah, with his family, and the animals which entered the ark by the command of God. Many other nations mention, in the mythological or prehistoric part of their history, inundations which, in their essential particulars, agree with the Scriptural account of Noah's preser-vation, each nation localizing the chief events and actors as connected with itself. **Delundung** (de-lun'dung: *Prionodon* gracilis), an interesting quadruped inhabiting Java and Malacca, allied to the civets, and probably forming a connecting link between them and the Felida, being destitute of scent-pouches. It is of slender form, with a long tail, and is beautifully spotted. **Delvino** (del'vi-no), a town of Alba-northwest of Janina; it is the seat of a Greek bishop, and has some trade in olive oil. Pop. about 6500. **Demagogue** (dem'a-gog), originally simply one who leads or directs the people in political matters; now it usually means one who acquires influence with the populace by pandering to their prejudices or playing on their ignorance. **Demand and Supply.** terms ...sed

used Demand and Supply, terms in points economy to express the relations between consumption and production, between the demand of purchasers and the supply of commodities by those who have them to sell. The relations which subsist between the demand for an article and its supply

in the Hungarian revolution of 1849: born in 1791; died in 1864. He served under Napoleon during the Russian campaign of 1812; was governor of War-saw and commander-in-chief of the Polish army during the revolution of 1830; was appointed by Kossuth commander of the Hungarian troops in 1849, and served till Kossuth's resignation compelled him to seek refuge in France, where he re-meined till his death. **Dementia** (de-men'shi-a), a form of nected and imperfectly defined ideas chase each other rapidly through the mind, the powers of continued attention and re-flection being lost. It often implies such general feebleness of the mental faculties as may occur in old age. **Demerara** (dem-er-ä'ra), or DEM-ARARA, a division of Brit-ish Guiana, which derives its name from the river Demarara or Demerara. It er-tends about 100 miles along the coast, ly-

tends about 100 miles along the coast, ly-ing on the east of Essequibo and on the west of Berbice. The soil is very fertile.

west of Berbice. The soil is very fertile, producing abundant crops of sugar, coffee, cotton, rice, etc. Chief town, George-town. Pop. of province. 171,000.—The river, after a course of about 120 miles, flows into the Atlantic. **Demesne** (de-män'), or DOMAIN, in land adjacent or near, which a lord keeps in his own hands or immediate occupa-tion, for the use of his family, as distin-guished from his tenemental lands, dis-tributed among his tenants. **Demeter** (de-mě'ter), one of the twolve principal Grecian deities, the great mother-goddess, the nourishing and fertilizing principle of

sell. The relations which subsist between the demand for an article and its supply determine its price or exchangeable value. When the demand for a commodity ex-ceeds the supply the price of the com-modity is raised, and when the supply exceeds the demand the price falls. **Demavend** (demä'vend), a volcanic the highest peak of the Elbruz chain, 45 albout 19,400 feet, and it bears evidence of having been active during the latest period. **Dembea** (dembea), or TSANA, a **Dembea** (dembea), or TS

# Demetrius

cractly knew how. Grishka, or Gregory Otrepleff, a native of Jaroslav and a novice in a monastery, personated Dmitri, went to Lithuania, where he embraced the Roman Catholic religion and married the daughter of Mnissek, palatine or waiwod of Sandomir. In 1604 he entered Russia at the head of a body of Poles, was joined by a number of Russians and Cossacks, and defeated an army sent against him. On the death of Boris he was placed on the throne, but he offended the Russians by his attachment to Polish manners and customs, and still more by a want of respect to the Greek religion and its patriarch, and he was assassinated a want of respect to the Greek religion and its patriarch, and he was assassinated after reigning about eleven months. A rumor of his being still alive having spread, another impostor quickly ap-peared to personify him, and the Poles espousing the cause of the second false Dmitri, made it triumphant, until he was assassinated in 1610 by the Tatars whom he had selected as his bodyguards. A state of anarchy ensued and continued for nearly half a century, during which a number of other false Dmitris appeared in different quarters. **Demetring** surnamed *Poliorcetes* (the

Demetrius, surnamed Poliorcètes (the besieger of cities), king of ancient Macedonia, son of Antigonus, a successor of Alexander the Great, was born about B.C. 339. Being sent by his father to wrest Greece from Cassander, he appeared before Athens with a fleet, expelled the governor Demetrius Pha-lercus, and restored to the people their ancient form of government (307 B.C.). He conquered Macedonia (234 B.C.) and reigned seven years, but lost this country, was imprisoned by Seleucus, and died in Syria, 283 B.C. Demetrius Phalereus (fa- le' rös).

numerent quarters.
 Demetrius, suramed Poliorcites (the second part of a semijuaver, or the thirty-second matching the Greek diminute of the work of the Greek diminute (deminute of the Deniurge and the propher sto the Divine Being ; with them the first is the Supreme Heing ; with them the first is the Supreme Heing ; with them the first is the Supreme Heing ; with them the first is the Supreme Heing ; with them the first is the Supreme A seven years, but lost this country, was imprisoned by Seleucus, and died in Syri, 2S3 B.C.
 Demetrius Phalereus (fa-lé 'rös), a colebrated first, a states man, ber 345 s.c. ; in 317 was made Macedonian governor of Athens, and embelished the Expyt when Athens was taken by Demetris by magnificent edifices. He field to Expyt when Athens was taken by Demetris of the Alexandrian Library and oplitical states of philospohical and political states of nodern subjects of philospohical and political states of nodern times. The term is also applied in a collective sense to the people or poulace, especially the populace regarded as rulers.
 Democrat (dem'o-krat), one who adhera subjects of classical languages in the asson retrieves in 1837; died in 1880. He was professor of classical languages in Aradia College in 1890-65, and of his Su5-80. His books were numerous, in Su5-80. His books were numerous, in the divided is opposed to Retributed the Dadge Club, The Americas

Baron, A Comedy of Terrors, The Cryptogram, etc.

togram, etc. **Demi-lune** (de'mi-lûn), in fortifica-tion, practically the same as a ravelin (which see). **Demi-monde** (de'mi-mond), an ex-pression first used by the younger Dumas in a drama of the same name (first performed in 1855), to denote that class of gay female adven-turers who are only half-acknowledged in society; popularly disreputable female society; courtezans. **Domi wilcore** (-ridli-â'yū), in sculu-

**Demi-rilievo**  $(-ri-ii-a^{\dagger}v\bar{v})$ , in sculp-ture, half-relief, or the condition of a figure when it rises from the plane as if it had been cut in two and only one half fixed to the plane.

and only one half fixed to the plane. **Demise** (de-miz; literally, 'a laying down'), in law, a grant by lease; it is applied to an estate either in fee-simple, fee-tail, or for a term of life or years. As applied to the crown of England, demise signifies its transmission to the next heir on being laid down by the sovereign at death. Domiser in or year (dem'i-sem'i-nui);

Demisemiquaver (dem'i-sem'i-qua'-ver), in music, half a semiquaver, or the thirty-second part of a semibreve.

#### Democrat.

#### Democritus

publican. The main features of the Dem-

publican. The main features of the Dem-ocratic principles are decentralization, self-government of the states, and tariff for revenue only. The Democratic party was in the ascendant during most of the time from the election to the Presidency of Jefferson, in 1800, to that of Lincoln, in 1860. Since the latter date the Re-publicans have nearly always been in control of the government, the only Dem-ocratic Presidents being Cleveland, who served two terms, at disconnected inter-vals, and Woodrow Wilson. **Democritus** (de-mok'ri-tus), a Greek Philosopher of the new Fleatic school, a native of Abdëra, who was born between 470 and 460 B.C. He traveled to Egypt, where he studied gometry, and probably visited other coun-tries, to extend his knowledge of nature. Among the Greek philosophers he en-joyed the instruction of Leucippus. He afterwards returned to his native city, where he was placed at the head of pub-ic affairs. Indignant at the follies of tretired to solitude, to devote himself ex-cording to later biographers he was called to flaughing at the follies of mankind. In his system he developed still further he mechanical or atomical theory of his master Leucippus. Thus he explained the origin of the world by the eternal motion of an infinite number of invisible and indivisible bodies or atoms, which differ from one another in form, position, and arrangement, and which have a pri-mary motion, which brings them into con-tions, the result of which his weap firm of the dorms innumerable combina-tions tof matter in general) he inferred from the consideration that time could be conceived only as eternal and with-ont beginning. He applied his atomical theory, also, to matural philosophy and astronomy. Even the gols he considered to have arisen from atoms, and to be prishable like the rest of things existing. In his eithe al philosophy Democritus con-sidered the acquisition of peace of mind as the highest aim of existence. He is In his ethical philosophy Democritus considered the acquisition of peace of mind as the highest aim of existence. He is said to have written a great deal; but and to have written a great deal; but nothing has come to us except a few fragments. He died 370 n.c., at an ad-vanced age. His school was supplanted by that of Epicurus. **Demogorgon** (demo-gor'gon), a mysterious divinity in

pagan mythology viewed as an object of terror rather than of worship, by some regarded as the author of creation, and by others as a famous magician, to whose spell all the inhabitants of Hades were subjected.

subjected. **Demoiselle** (dem-wå-zel'), the Nu-midian crane (Anthro-poides rirgo), an African bird which visits the south of Europe. It is about 3 feet in length, and differs from the true cranes in having the head and neck quite feathered and the tertials of the wings elongated and hanging over the tail. It has its name from its gracefulness and symmetry of form.

symmetry of form. **Demoivre** (de-mwil-vr), ABRAHAM, a born in 1667; died at London in 1754. Ile settled in London after the revocation of the edict of Nantes, and gained a live-lihood by becoming a teacher of mathe-matics. His chief works are: Mincellane a Analytica; The Doctrine of Chances. or a Method of Calculating the Probabilities of Events at Play: and a work on an-nuities: besides Papers in the Transac-tions of the Royal Society, of which he was a fellow. was a fellow.

was a fellow. Demon (dë-mun; Greek, daimon), a supernatural but limited powers, espe-cially an evil or malignant spirit. Among the ancient Greeks the name was given to beings similar to those spiritual exist-ences called angels in the Bible. In the New Testament evil spirits are called demons (commonly translated 'devils'). A belief in demons is found in the oldest religions of the East. Buddhism reckons six classes of beings in the universe; two, gods and men, are accounted good; the six classes of beings in the universe; two, gods and men, are accounted good; the other four are malignant spirits. The Persians and the Egyptians had also a complete system of demons; and in Eu-rope, up till the middle ages, the divinities of oriental, classical, and Scandinavian mythology often figure, from the Christian point of view, as evil spirits. In later times phases of demonology may be seen in the witchcraft mania and the spiri-ualism of the present day. Demoniac (demo'ni-ak), a person whose mental faculties are overpowered, and whose body is possessed

overpowered, and whose body is possessed and actuated by some created spiritual being; especially a person possessed of or controlled by evil spirits. The New Testament has many narratives of demoniacs, and various opinions are entertained in regard to the characters of their affiction.

Demonology (de-mon-ol'o-ji), the doctrine or science



#### Demonstration

which treats of the nature or character He was of demons or evil spirits. Demonstration (demoun-strä'shun), and Boo any mode of connecting a conclusion with the accer its premises, or an effect with its cause, mothene In a more rigorous sense it is applied only ing again to those modes of proof in which the con-clusion necessarily follows from the prem-ises. In ordinary language, however, mercy. demonstration is often used as synony-mous with proof. Demonte (dä-mon'tä), a town of on a fall Mailes S. w. from Cuneo. Pop. of com-mune, 5155. De Morgan (de mor'gan). Avous-recalled,

mune, 5155. De Morgan (de mor'gan), AUGUS-TUS, mathematician and logician, was born at Madura, in South-ern India, in 1806; died in 1871. His writings are very numerous and include Elements of Arithmetic, Elements of Al-gebra, Elements of Trigonometry, Essay on Probabilities and or their Application to Life Contingencies and Insurance. Offices, Formal Logic.

on Probabilities and or their Application on Probabilities and or their Application to Life Contingencies and Insurance Offices, Formal Logic. **De Morgan**, William FREND, Eng-lish author, born in 1839 at London, adopted art as a profe-sion and achieved considerable fame in stained glass-work. In 1906 he com-menced as a writer of fiction. His novels include Alice-for-Short, Joseph Vance (nearly 300,000 words), Somehour Good. It Never Can Happen Again. An Affair of Dishonor, and When Ghost Meets Ghost (written in 1914). He died Jan. 15, 1917. **Demos** (dd'mos; Greek), the people as of the lower class as distinguished from those of rank, wealth, or position. **Demosthenes** (dd-m os'th e-nes), a famous ancient Greek orator, the son of a sword-cutler at

orator, the son of a sword-cutler at Atnens, where he was born in 382 (ac-cording to some in 385) B.C. His father left him a considerable fortune, of which his guardians attempted to defraud him. Demosthenes, at the age of seventeen years, conducted a suit against them him-self, and gained his cause. He then set himself to study eloquence, and though his lungs were weak, his articulation deself, and gained his cause. He then set 1625. He studied in various institutions, himself to study eloquence, and though became noted for learning, and is said to his lungs were weak, his articulation de-have been regent of the College of Na-fective, and his gestures awkward, by varre, Paris, at the age of seventeen, perseverance he at length surpassed all He held professorships of law and belles-other orators in power and grace. He lettres at Toulouse, Nimes, Piss and thundered against Philip of Macedon in Bologna, and became noted for his quar-his orations known as the Philippics, and relsome temper, which often involved him endeavored to instill into his fellow-cit-in scenes of armed violence. The best izens the hatred which animated his own known among his many works is Historis bosom. He labored to get all the Greeks Gentis Scotorum, a blographical diction-to combine against the encroachments of ary of the authors and saints of Scotland, Philip, but Macedonian gold and their many of them fictitious. A more valuable want of patriotism frustrated his efforts, work is De Etruris Regeli.

He was present at the battle of Chero-neia (380 B.C.), in which the Athenians and Bosotians were defeated by Philip, and Greek liberty was crushed. On the accession of Alexander, in 336, De-mosthenes tried to stir up a general ris-ing against the Macedonians, but Alex-ander at once adonted measures of exing against the Macedonians, but Alex-ander at once adopted measures of ex-treme severity, and Athens sued for mercy. It was with difficulty that De-mosthenes escaped being delivered up to the conqueror. In 324 he was imprisoned on a false charge of having received a bribe from one of Alexander's generals, but managed to escape into exile. On the death of Alexander the next year he was recalled, but the defeat of the Greeks by Antipater caused him to seek refuge in the temple of Poseidon, in the island of Calauria, on the coast of Greece, where he poisoned himself to escape from the emissaries of Antipater (322 B.C.). The character of Demosthenes is by most mod-ern scholars considered almost spotless. Ilis fame as an orator is equal to that of Homer as a poet. Circero pronounces him Home as a post. Cieero pronounces him the most perfect of all orators. He carried Greek prose to a degree of perfec-tion which it never before had reached. Everything in his speeches is natural, vigorous, concise, symmetrical. We have Everything in his speeches is natural, vigorous, concise, symmetrical. We have under his name sixty-one orations, some of which are not grounder. The great op-ponent—and indeed enemy—of Demos-thenes as an orator was Æschines, and a controveray with the latter called out one of the noblest efforts of the great orator. **Demotic Alphabet** (demot'ik; or ExcHOBIAL), a simplification of the hieratic, which again was a contraction of the hieroglyphic characters. See *Hieroglyphic Writing*. **Demotica**, ka), a town of Roumelia, on the right bank of the Maritas, 20 direck archbishop; pop. about 10,000.

Greek archbishop; pop. about 10,000. **Dempster** (dem'ster). THOMAS, a Scotch writer, was born at Muiresk in 1529; died at Bologna in 1625. Ile studied in various institutions,

#### Dempster

# Demulcents

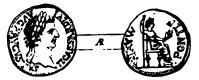
(dē-mul'sents), medi-which tend to medi-Demulcents

**Demulcents** (dē-mul'sents), medi-cines which tend to soothe or protect the mucous membranes against irritants. They are generally composed of starch, gun, albuminous or oily substances largely diluted. **Demurrage** (de-mur'aj) in maritime law, the time during which a vessel is detained by the freighter, beyond that originally stipulated, in load-ing or unloading. When a vessel is thus detained she is said to be on demurrage. The name is also given to the compensa-tion which the freighter has to pay for such delay or detention. Demurrage must be paid though it be proved the delay is such delay or detention. Demurrage must be paid though it be proved the delay is inevitable; but it cannot be claimed where it arises from detention by an enemy, tempestuous weather, or through the fault of the owner, captain, or crew. The term is applied also to detention of railway freight cars, etc.

**Demurrer** (de-mur'er), in law, a stop at some point in the plead-ings, and a resting of the decision of the ings, and a resting of the decision of the cause on that point; an issue on matter of law. A demurrer confesses the fact or facts to be true, but denies the sufficiency of the facts in point of law to support the claim or defense. **Demy** (de'mi), a particular size of pa-per—in America, writing paper, 16x21 inches; in Great Britain, printing paper, 17½x22 inches; writing paper, 15x20 inches; drawing, 17x22 inches. **Demoe**: (de'nam), a town of Northern

**Denain** (de-nau), a town of Northern France, dep. Nord, 6 miles from Valenciennes. It stands in the center of a coal-field, and has ironworks, etc. A great victory was gained here in 1712 by the French under Villars over the allies under Eugene and Albemarle. the allies ur Pop. 22,845.

**Denarius** (de-nā'ri-us), a Roman silver coin worth 10 asses or 10 lbs, of copper originally, and after-wards considered equal to 16 asses, when the weight of the ass was reduced to an



United States Congress in 1907, on al-cohol intended for use as fuel or for illuminating purposes, or other mechan-ical employment, the internal tar need not be paid. But to avoid taration it must be rendered unfit for drinking by the addition of such unpalatable sub-stances as wood alcohol, pyridin. benzola. sulphuric ether, or animal oil. Thus treated it is spoken of as denatured. **Denbigh** (den'bi), a county of North **Denbigh** (den'bi), a county of North area. 664 square miles, of which about a fourth is arable. Along the x, the ground is level, in the z, hilly, while the moun-tains in the s, and w. rise from 1000 to 2500 feet. There are several beautiful and fertile vales, among the more cele-brated of which are the vales of Llangollen, Clwyd and Conway. Barle; oats and potatoes are grown on the up-lands; and in the rich valleys wheat, beans, and peas. Cattle and sheep ar-reared, and dairy husbandry is carried on to a considerable extent. The minerals consist of lead, iron, coal, freestone, slate and millstone. Flannels, coarse cloths and stockings are manufactured. The principal rivers are the Clwyd, the De-and the Conway. Pop. 144,796.—The frounty town Denbigh is near the center of the Vale of Clwyd. 25 miles w. of Chester, picturesquely situated on a rocky eminence, the summit of which is crowned by the ruins of an ancient castle. Tan-ning and shoemaking are carried on. Pop. (S92.

Pop. (8892. Denderah (den'dêr-a; the Tentyrs of the Greeks and Romans). an Arab village of Upper Egypt, on the left bank of the Nile, 28 miles N. of Thebes, celebrated for its temple dedicated to Athor, the Egyptian Venus, the best preserved of any of the great temples of antiquity in Egypt. Dendermonde (den-dêr-mên'de), or TERMONDE, a town of Relgium, province of East Flanders, at the confluence of the Dender with the Scheldt, 12 miles N. W. from Brussels. It is strongly fortified, defended by a citadel, and surrounded, by low, marshy ground which can be laid under water. Manu-factures, woolens, linens, tobacco, etc. The town was taken by Marlborough in 1706, Pop. 9719. Dendrite (den'drit), a stone or

Dendrite (den'drit), Denarius of Tiberius Cæsar. ounce on account of the scarcity of silver. The denarius was equivalent to about The appearance is due to arborescent 7% d. Enclish money. There was also a crystallization, resembling the frostwork gold denarius equal in value to 25 silver ones. Denatured Alcohol. Under a law joints in rocks, and are attributable to passed by the stone

# Dendrobium

Dendrobium (den-dro'bi-um), an ex-tensive genus of epi-phytes dispersed over the damp tropical forests of Asia, order Orchidaces. They vary much in habit; many are cultivated in hothouses on account of the beauty of their flowers.

their flowers. **Dendrophis** (den'drō-fis), a genus of harmless serpents, fam-ily Colubridæ, found in India and Africa, living on trees and feeding on reptiles. **Dengue** (deng'gà), a febrile epidemic disease of the West Indies and Southern United States, the symp-toms of which are such as would accom-pany a mixture of scarlet fever and rheumatism. rheumatism.

rheumatism. Denham (den'am), Dixon, lieutenant-colonel and African traveler, was born at London in 1786; died at Sierra Leone, in 1828. In 1823-24 he was engaged, in company with Captain Clapperton and Dr. Oudney, in exploring the central regions of Africa. Denham himself explored the region around Lake Tchad, was wounded and separated from his company, but found his way home after great suffering, when he published his Narrative of Travels. In 1826 he went to Sierra Leone as superintendent of the liberated Africans, and in 1828 was appointed lieutenant-governor of the was appointed lieutenant-governor of the

colony. Denham, SIR JOHN, a poet, born at Denham, Dublin in 1615; died in 1689, and was buried in Westminster Abbey. In 1641 he first became known by his tragedy of *The Sophy*, and in 1642 he published his first edition of his most celebrated poem, called *Cooper's Hill*. He was subsequently entrusted with several confidential missions by the royalist party, and, being detected, fled to France. At the restoration, in 1660, he obtained the office of surveyor of the king's build-ings, and was created a knight of the Bath, and a fellow of the newly formed Royal Society. Denina (dä-né'nà), CARLO GROVINS

Royal Society. Denina (dā-nē'nā). CARLO GIOVANNI Granville, Ohio, founded in 1831 under MARLA, an Italian historian, the name of Granville Literary and Theo-born in 1731 at Revello, in Piedmont, logical Institute. The name was changed lie became professor at Pinerolo, and to Denison University in 1856. With it is afterwards at Turin, where he published affiliated the Shepardson College for the first three volumes of his *History of* Women. Students, 900; faculty 46. Italian Revolutions (1769), containing a general history of Italy. In 1777 he **Denison**, GEORGE TAYLOR, military general history of Italy. In 1777 he Canada, in 1839. He entered the Berlin, where he was welcomed by Fred-crick the Great, an account of whose life of the governor-general's bodyguard. His and reign he afterwards wrote. Most of *History of Caralry* won a prize of 5000 his works:-*History of Piedmont, Political* rubles, offered by the Czar of Russia.

ganese, which generally assumes such a and Literary History of Greece, etc.— form.—Thread-like prolongations of nerve were written at Berlin. In 1804 he was cells bear the same name. Dendrobium (den-dro'bi-um), an ex-tensive genus of epi-phytes dispersed over the dawn tronical D

**Denis**, ST. (sap deh-nē), a town in Seine, 6 miles north of l'aris, lying with-in the lines of forts surrounding the capital. It contains the famous abbey church of St. Denis, a noble Gothic structure, in part dating from the eleventh century or earlier, but much was done in the way of restoration in the nineteenth century. St. Denis was the burial place of the kings of France; and all her rulers from St. Denis was the burial place of the kings of France; and all her rulers from Hugh Capet downwards, besides some of the earlier dynasties, lay there till 1793, when the revolutionary fury of the con-vention caused the tombs to be rifled and the church to be denuded. At the restora-tion Louis XVIII again sought out the relics of his ancestors, so far as they could be found, and had them buried here, and there is now again a long series of restored royal tombs, with numerous other monuments, much stained glass, and mod-ern decoration. The church is about 354 feet long and 92 high. Pop. (1911) 71,549. **Denis**, Sr., (deh.ne; Latin, *Dionysius*). Best out from Rome on his sacred mission towards the middle of the third century, became the first Bishop of Paris, and was put to death by the Roman Governor Pescennius. Catulla, a heathen lady con-verted by the sight of the saint's piety and sufferings, had his body buried in her garden, where the Abbey of St. Denis now stands.

garden, where the Abbey of St. Denis now stands. Denison (den'i-sun). a city of Gray-son Co., Texas, 73 miles N. of Dallas. It is an industrial city with 12 railroad outlets. The principal industries are textile mills, peanut factories, grain elevators, flouring mills, creosote works. cottonseed products mill, machine shops. etc. It is in a rich farming section. Pop. (1910) 13,632; (1920) 17,085. Denison University a Baptist in-

Denison University, a Baptist in-

#### Denison

#### Denizen

holding a middle state between an alien and a natural-born subject. A denizen n the U. S. is a naturalized citizen.

nothing a mature state between an after and a natural-born subject. A denizen n the U. S. is a naturalized citizen. Denmark (den'mark), a kingdom of northern Europe, consist-ing of the peninsula of Jutland, north Schleswig, the island of Bornholm, and a group of islands, the most important of which are Zealand, Fünen, and Laa-land. Besides these there are the out-lying possessions of the Farce Islands (540 square miles; pop. 21,364), and Greenland (ice-free portion about 46,740 square miles; pop. 94,6300) is united with Denmark by a personal bond of union under the government of the Danish sov-ereign, under the agreement of December 1, 1918, which recognized Iceland as an independent state, united with Denmark only through the identity of the sover-eign. The area of the home possessions, including north Schleswig, is 16,6009 sq. miles; pop. (1921) 3,267,831. Following the European war (1914-18) north Schleswig was added to Denmark as the result of a plebiscite of the inhabitants taken in accordance with the terms of the Irraty of Peace. Copenhagen is the cap-ital; other chief towns are Aarhus, Odense, Aalborg, Horsens, Randers, Den-mark is divided into 22 counties, each under a governor (Amtand). On the south, Denmark is bounded by Germany and the Baltic; on the west it is weaked by the North Nea; northwards it is acparated from Norway by the Skager Rack; eastward it is separated from Sweden by the Kattegat and the Sound. Denmark, whether insular or mainland, is a very low-lying country, the eastern side of Jutland, where the highest elevation occurs, not exceeding 550 feet. All the rocks belong to the upper series of

elevation occurs, not exceeding 550 feet. All the rocks belong to the upper series of the secondary and to the tertiary forma-tion. The rock most fully developed is the halk, above which is an extensive boulder halk, above which is an extensive boulder formation containing seams of lignite. Above this are thick beds of clay and mark. Where this prevails, as in Soeland and the east of Jutland, the soil is gen-crally fertile; but where it is overlaid with deep beds of sand, as in the north and west of Jutland, the aspect is ex-tremely desdate. Nearly the whole west coast, indeed, is rendered alm st unin-Labatable by the drift-sand which has formed an aba st uninterrupted line of sterile d was called *Klitten*, extending

from Cape Skagen (or The Skaw) to Blaavands Hook. A large portion of Jutland consists of heathy or moory land, comparatively unprofitable. Elsewhere it exhibits a fertile, undukting surface. The islands, especially Seeland and Fünen, are fortile and present many landscape beauties. The country was once covered with great forests, but these have disap-poared, and Denmark is largely depend-ent on other countries for her supplies of timber. Woods of some extent still exist, however, especially in the islands. In the earliest prehistoric times (the stone age) the Scotch fir was the prevail-ing tree, and subsequently the oak. Th-principal tree now is the beech, the oak forming but a small portion of the timber of Denmark. The elm, ash, willow, aspen and birch are met with in small numbers or singly. Fine forests have been planted in the north of Jutland and else-where. Denmark has numerous streams but no large rivers; the principal is the Guden, which flows northeast through Jutland into the Cattegat. It is navigable for part of its course. Less important streams are the Holm, the Lonborg and the Stor Aa. All the others are insignif-cant brooks and streamlets. The lakes are very numerous but not large, the largest not exceeding 5½ miles in length by about 1½ miles broad. There are nu-merous winding inlets of the sea that penetrate far into the land. The larges of these, the Liimford in Jutland, enter-ing from the Cattegat by a narrow chan-nel, winds its way through to the North Sea, thus making northern Jutland really an island. In this fiord, which widen-out greatly in the interior and gives of various minor fiords, there are one larg-and various small islands. Intercourse between the various islands and parts of the kingdom, separated from each other by water, is well kept up by ferries, etc. and various small islands. Intercourse between the various islands and parts of the kingdom, separated from each other by mater, is well kept up by ferries, etc. and various small islands. Intercourse between the v Other works were Manual of Outpost from Cape Skagen (or 'The Skaw) to Dutics, Modern Caralry, etc. Blaavands Hook. A large portion of Denizen (den'i-zn), in English law, Jutland consists of heathy or moory land, an alien who is made a sub-ject by the sovereign's letters patent, exhibits a fertile, undulating surface. The

prevalent, but the chinate is invorable or vegetation. The agricultural land is greatly subdi-vided, as the law interdicts the union of small farms into larger. Among crops the greatest area is occupied by outs, which are grown all over the country, but

# Denmark

**Denmark** best in Jutland. Barley is grown chiefly in Seeland, and is largely used in brewing beer, the common beverage of the country. Rye is extensively raised, and the greater part of the bread used in Denmark is made from it. Turnips, beans, peas, flax, hemp, hops, tobacco, etc., are also grown; but in general cattle-breeding, grazing and the dairy take up most of the farm-er's attention in Denmark. The old Dan-ish breed of horses, found chiefly in Jut-land, has long been famous for strength, symmetry, docility and bottom. The fisheries are still important, but not so much s0 as formerly. The herring, turbot, torsk and salmon are the most abundant. The manufactures, although progressing, are not yet of great im-portance. Paper, gloves, the woolens and earthenware of Jutland, the wooden clocks of Bornholm, are the chief. There are also iron-foundries, sugar-refineries, some extensive tanneries, and many dis-tilleries. The people of Denmark bake their own bread, brew their own heer, and make the greater part of their house fur-niture and utensils with their own hands. They are very skilful. The commerce of Denmark is carried on chiefly with Germany, Great Britain, Sweden, Norway, United States, Canada, Holland, France, and colonies. The value of imports, 1921, was \$450,000,000 exports. \$400,000,000. The chief imports are textile manufactures, metal goods, coult, timber, oil, coffee, sugar, tobacco, fruit, etc. The chief exports are cattle, borses and swine, butter (a most impor-tant item), bacon, hides, flour, eggs, and other agricultural produce goes to Britain. The mercantile marine has a total ton-mage of about 50,000. The railways have a length of about 3000 miles. Since

other agricultural produce goes to Britain. The mercantile marine has a total ton-nage of about 550,000. The railways have a length of about 3000 miles. Since 1875 the unit of the Danish monetary system has been the *krone*, or crown, value 26.8 cents. The krone is divided into 100 öre. The Danish pound weight is equal to 1.102 avoirdupois. The barrel or founde, is could to 3.8 immerial bush-

into 100 for. The barnest pounds, weight is equal to 1.102 avoirdupois. The barrel or toende, is equal to 3.8 imperial bush-els; the viertel to 1.7 English gallons. The foot equals 12.356 English inches; the mile is 4.684 English miles. These measures have been superseded by the metric system, legally established in 1907. The population of Denmark is com-posed almost exclusively of Danes, with a few thousand Jews and others. The Danes have regular features, fair or brownish hair, and blue eyes. They still maintain their reputation for scafaring skill and he-pitable customs. They are almost exclusively Lutherans in religion, but unlimited toleration is extended to all faiths. Jews, however, though themselves

electors, cannot be elected as represent-atives. At the head of the educational institutions stand the University of Copenhagen and the Holberg Academy at Noröe. The provinces are well supplied with gymnasia and middle schools, and primary instruction is given at the public expense in the parochial schools. It is rare to meet a peasant who cannot read and write, even among the poorer class. The government of Denmark was origi-nally an elective monarchy. In 1661 it

and write, even among the poorer class. The government of Denmark was origi-nally an elective monarchy. In 1601 it became a hereditary and absolute mon-archy, and in 1849 a hereditary constitu-tional one, the legidative power being vested in the king and diet jointly. The diet or *Rigadag* consists of two chambers, the Landsthing or upper house, the Folke-thing or lower house. The former is a senate of 66 members, twelve of whom are nominated for life by the crown, the others being elected for eight years. The members of the Folkething are 114 in number, directly elected by universal suf-frage, and hold their sents for three years. The Rigsdag meets every October, and all money bills must be submitted to the lower house. The army consists of all the able-bodied young men of the kingdom who have arrived at the age of twenty-one years. The time of service is eight years in the regular troops, and after-wards eight more in the reserve. Every corps has to drill for thirty to forty-five days every year. The effective strength of the army is 60.000 men, with an addi-tional force of 55,000 available The may is unimportant. The revenue in 1921 was \$120.000.000; national debt, \$298.000.000. of the army is seen tional force of 55,000 avanuation navy is unimportant. The revenue in 1921 was \$120,000,000; mational debt, \$298,000,000. History. — The oldest inhabitants of history. — The oldest inhabitants of the dwelt in the

1921 was \$120,000,000; mational debt, \$298,000,000. History. — The oldest inhabitants of Denmark whom we find mentioned by name were the Cimbri, who dwelt in the peninsula of Jutland, the Chersonesus Cimbrica of the Romans. They first struck terror into the Romans by their incursion, with the Teutones, into the rich provinces of Gaul (113-101 B.C.). After this, the Goths broke into Scan-dinavia, and appointed chiefs from their own nation over Denmark, Norway and Sweden. For a considerable time Den-mark was divided into a number of small states, whose inhabitants lived mostly by piracy along the neighboring coasts. In 757 they began to make their descents on the eastern coasts of England, and along with other inhabitants of Scandinavia they conquered Normandy in 876-7. Under Gorm the Old all the small Danish states were united in 920, and his grand-son Sweyn, now the head of a power-ful kingdom, commenced the conquest of Norway and of England, which was ultimately completed by his son Canute,

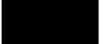
#### Denmark

### Denmark

Canute died in 1035, leaving a powerful kingdom to his successors, who, in 1042, lost England, and in 1047 Norway. In 1047 Sweyn Magnus Estridsen ascended the throne, but with the exception of the great Waldemar the new dynasty fur-nished no worthy ruler, and the power of the kingdom decayed considerably till the accession of the politic Queen Margaret in 1387, who established the union of Calmar in 1397, uniting under her rule Denmark, Sweden and Norway. In 1448 Christian I, count of Oldenburg, was elected to the throne, thus founding the royal family of Oldenburg, which kept possession of the throne till 1863. Under the rule of Christian IN Sweden and Norway, Schleswig and Holstein were connected with the crown of Denmark, but under his successor, Christian II, Sweden estab-lished its independence. Under Frederick I (1523-33) the Reformation was intro-duced. Christian IV of Denmark as-cended the throne in 1588, took part in the Thirty Years' war, and engaged twice in a war with Sweden, with most unfor-tunate results. Frederick III again en-gaging in war with Sweden in 1657 was equally unsuccessful. Christian V and Frederick IV were conquered in the war with Charles XII. Denmark, however, after the fall of Charles XII, gained by gaging in war with Sweden in 1657 was equally unsuccessful. Christian V and Frederick IV were conquered in the war with Charles XII. Denmark, however, after the fall of Charles XII, gained by the Pence of 1720 the toll on the Sound, and maintained possession of Schleswig. After this Denmark enjoyed a long repose. In 1800, having acceded to the northern confederacy, the kingdom was involved in a war with Great Britain, in which the Danish fleet was defeated at Copenhageu. April 2, 1801. In 1807, there being renson to think that Denmark would join the alliance with France, a British fleet was sent up the Sound to demand a de-fensive alliance or the surrender of the Danish fleet as a pledge of neutrality. Both were denied, and the Danish capital was bombarded and forced to capitulate, the whole fleet being delivered up to the British. The ways heaven to in were denied, and the Danish capital was bombarded and forced to capitulate, the whole fleet being delivered up to the British. The war, however, was con-tinued. Denmark forming new alliances with Napoleon until 1814, when a peace was concluded by which she ceded Heligo-land to England in exchange for the Danish West India Islands, and Norway to Sweden in exchange for Swedish Pomerania and Rügen, which, however, she shortly after surrendered to Prussia, receiving in return Lauenburg and a poluniary compensation. In June, 1815, the king entered into the German con-federacy as representing Holstein and Lauenburg. In 1848 Schleswig and H-1stein revolted and were not finally schelued till 1852. In 1857 the Sound bacs were abolished. Frederick VII died

Denmark

 in 1863 and with him the Oldenburg ling Christian IX (Prince of Sonderburg Oldeksburg). At the commencement of 1864 the Danish territory was politically distributed into four parts, viz. Denmark North Juliand), the duchy of Schleswig or South Juliand, with a popu-lation more than one-half Danish, the of Holstein, purely German: the duchy of Holstein, purely German. The measu tres of the Danish government compelling the use of the Danish language in states of the German confederation, and ultimately Holstein was occupied by the After a short campaign the Prussian (1890). Attack and Prussian (1894). After a short campaign the Prussian of the German confederation, and ultimately Holstein and Lenenburg. A difference now arose between Austria and the dusputes resulted in the intervention of the German confederation, and ultimately Holstein and Prussia (1894). After a short campaign the Prussian of cycle a peace (August 1), by which they of Juliand, and forced the Danes to accept a peace (August 1), by which they should be duches. The chief events and the total defeat of Austria and the total defeat of Austria to a short campaign the Prussian evident intention of annexing them, the which duches, and Prussia showing an evident intention of annexing them, the shows, or Königgrätz, July 3, 1946 board the duches. The chief events is for then have been prolonged strus-fictual purty (1893) desiring parliameters is board of the proposal to self the founds of the proposal to self the founds of the proposal to self the founds of the Teutonic family of han which due is a sister of the Swedish and forman or the Roman characters. From the Jong union of Norway vithe Paul anguage consist of the laws of the events is the horized the duche family of han for horized while they still lived in the found of the proposal to self the pause of the Norwegians, and is site of the Influence of the Swedish and forman or the Roman characters. From the honguage of the eduches (Kiemerth for hong union of No in 1863 and with him the Oldenburg line



# Denmark

mouths of the people, by A. S. Vedel. Other ancient literary monuments prob-ably belonging to the thirteenth century, are the Danish Rhyming Chronicie and a Danish translation of the Old Testament. During the Reformation period Christian Pederssen (1430-1554) did for the Danish language much what Luther did for the German, by publishing, besides other works, a translation of the New Testa-ment and the Psalter and later the com-plete Bible. The sixteenth and seven-teenth centuries were distinguished by the publication of a number of works on the national history, among the writers of which we may mention Hans Svaning the elder, Arild Hvitfeld, Nils Krag, Vitus Bering, Ramus, etc. Modern Danish poet-ry commences in the period succeeding the Reformation with hymns, Scriptural dramas, edifying narratives, etc. Justesen Braech and Erik Pontounidan the elder Bering, Ramus, etc. Modern Danish poet-ry commences in the period succeeding Swift satrized him with merciless wit in the Reformation with hymns, Scriptural Raach and Erik Pontopidan the elder are among the chief names in this depart-ment. Anders Bording (died in 1037) and Thomas Kingo (died in 1723) made names as lyric poets, the sacred poems of the latter being a noble contribution to Danish literature. A new epoch began with louis Holberg (1684-1754), who was the family. Of amiable manners, and with handing literature. A nong the comic was inspired into Danish poetry by Adam Ochenschläger (1779-1850), contempo-rary with whom was Adolf Wilhelm Schack Staffeldt (1770-1850), contempo-first as a lyric poet, Manney but afterwards turned bis attention to the drama, and later to the historic romance. Among dramatic writers the numes of Johan Ludwig and engreving. Respective matures is attention to the drama, and later to the historic romance. Among dramatic writers the numes of Johan Ludwig Heiderg Averskou, Hostrup, Erik Rögn and the more need Molsen and Edvard Brandes, are well known. Among poets we may mention Heiberg, Andersan Brandes, are well known. Among poets we may mention Heiberg, Andersan Brandes, are well known. Among poets we may mention Heiberg, Andersan Brandes, are well known. Among poet Wenter the numers of Johan Ludwig Heiberg, Overskou, Hostrup, Erik Rögn and the more need Molsen and Edvard Brandes, are well known. Among poet we may mention Heiberg, Andersan and Godschnidt, Sten Stensen Bicher, who Bicher, Hölst, Paludan-Müller and Rosenhedi: the modern school being rep-resented by Carl Foung other school being rep-resented by Carl Foung other who have die foldschnidt, Sten Stensen Bicher, who double the denaity. Of matter as another-modern writers we must mention Hendrik be sub ulk with abouter contains double the denaity of matter as another-modern writers we must throughout that of the border heing scholars bulk is density is great-Hortz, a lyric poet and dramatis; Hane scholar writer

and critics may be mentioned Madvig; Westergaard, Rask, and, above all, Georg Brandes, who has been ranked with Brandes, who Sainte-Beuve.

Westergard, Rask, and, above an Georgard, Rask, and, above an Georgard, Rask, and, above an Georgard, Brandenburg, Dennewitz (den'e-vits), a small village of Brandenburg, Prussia, famous for the battle, September 6, 1813, in which the Prussians, aided toward the end by Russian and Swedish armies, defeated the French.
Dennis (den'is), JOHN, an English (den'is), JOHN, an English (dramatist and critic, born in London in 1637; died in 1734. He wrote a number of dramatic pieces and poems, and at length settled down to criticism. It is irritability and rancorous criticisms involved him in perpetual broils. Popegave him a place in his Dusciad, and Swift satirized him with merciless wit in his Narrative of the Deplorable Frenzy of Mr. John Dennis.
Dennison (den'i-son), a city of Tus-Chacinati & St. Louis R. R. shops are here. Pop. (1920) 5524.
Denn (denon). DOMINIQUE VIVANT, BARON DE, a distinguished French artist, born in 1747, of a noble family. Of amiable manners, and with a talent for the arts, he was appointed gentleman-in-ordinary to Louis XV. He was afterwards employed in the diplomatic service, and was long connected with the French embassy in Naples, where he greatly improved his talent for the arts, Returning to France he became acquainted with Bonaparte, accompanied him in his campaigns, was made inspector-general of museums, selected the works of art to be transferred from conquered countries to the Louvre, and superintended the arceton of more.

#### Density

tities of matter in bodies are known by their gravity or weight, and when a body, mass, or quantity of matter is spoken of, its weight or gravity is always under-stood, that being the proper measure of the density or quantity of matter. The weights of different bodies, of equal bulks, indicate their relative densities. The denweights of different hodies, of equal bulks, indicate their relative densities. The den-sity of solids, fluids and gases, as com-pared with that of water, is their *Specific Gravity* (which see). As for the density of the earth, see *Earth*. **Dental Formula** (den'tal for'm G-la), an arrange-ment of symbols and numbers used to signify the number and kinds of teeth of a mammiferous animal. The dental for-mula of man is:

mula of man is:

I.  $\frac{2-2}{2-3}$ , C.  $\frac{1-1}{1-1}$ , P.M.  $\frac{2-2}{2-3}$ , M.  $\frac{3-3}{3-4}=32$ ,

which is read thus: Two incisors on each side of both jaws, one canine tooth on each side of both jaws, two premolars on each side of both jaws, and three true molars on each side of both jaws, in all 32 teeth.

**Dentalium** (den-tā'li-um), a genus of gasteropodous molluscs, the shell of which consists of a tubular arcuated cone open at both ends, and resembling the task of an elephant in miniature. There are many species. ature. There are many s wn by the common name of knov toothshells.

Dentaria (den-tā'ri-a).

They have conical teeth, and those imme-diately in front are long and hooked in-ward. The *Dentex vulgaris*, common in the Mediterranean, sometimes attains the length of 3 feet. Its general appearance is not unlike the perch. It is esteemed as an article for food.

Dentifrice (den'ti-fris), a prepara-tion for cleansing the teeth, of which there are various kinds in the form of tooth-powders, tooth-washes, or tooth-pastes. Cuttle-fish bone, finely powdered chalk, and charcoal are com-mon dentifrices. Rhatany, catechu, myrrh and mastic are also often em-ployed.

Dentils (den'tils), in architecture, the little cubes resembling teeth,

into which the square number in the bed-mold-ing of an Ionic, Corinthian, or composite cornice is divided.



Dentine (den'-tin), aa, Dentils of the Corin-the ivory tissue thisn Cornics. lying below the enamel and constituting the body of a tooth. It consists of an organic basis disposed in the form of extremely minute tubes and colla colla of the form of extremely minute tubes and of mineral matter. cells, and

of mineral matter. Dentirostres (den'ti-ros-trez). a tribe of birds of the order Insessores or Perchers, including Shrikes, Butcher-birds, etc., characterized by having a notch and tooth-like process on each side of the margin of the upper mandible. They are rapacious and prey on weaker birds.

shells. Dentaria (den-tā'ri-a), coral-root, a genus of plants, nat, order Crucifera. There are about twenty species, natives of temperate countries. They are ornamental herbs, with creeping, singularly toothed root-stocks, from which they receive the names of coral-root and toothwort. The stem-leaves are opposite or in whorls of three, and the flowers are harge and purple. D. bulbiféra, the only British species, is a rare plant in the southeast of England. D. diphylla, or pepperwort, a North American species, has roots that are used as mustard. Dentatus (den-tā'tus), MANITS CUR-traite to a victorious fermination the wor with the Samites, which had lasted to nearly ufty years. In B.C. 270 he was made consul-for the the semited to a magnificent triumph. In B.C. 274 he was made consul-for the the received a magnificent triumph. In B.C. 274 he was made consul-for the the tried time and endeted to a successful issue to last war with the southeast. The died about B.C. 270 Dentex (den'teks), a genus of acon-triumph. In B.C. 274 he was made consul-for the third time and conducted to a successful issue to last war with the southeast of the sparide, or scabreaus, which is now being so generally recog-

nised, that the vestibule of the human body, through which iz very sustenance enters, and through which germs of dis-case may also enter the system, should be reproved historian, refers to the care bodies unusual art possibilities, and the given diseases of the testh; other writers claim to have found in Hyptian tombs among the ancient Egyptians says: 'It is a singular fact that their dentist andopted a method not very long practication in Burops, of stopping the testh with gold, proofs of which have been obtained from are made for the earliset evidence of den-istry among the Chines. The Chines data the arts and aclences; one of the ancient image of the issues through has its colleges; its societies, state and rescaled for these who with gold proofs of the issues. Thus through Homer, Cicero, Aristotle, Hippor-ates and others we might trace a ceristry through Homer, Cicero, Aristotle, Hippor-ates and others we might trace a ceristry through Homer, Cicero, Aristotle, Hippor-ates and others we might trace a ceristry through Homer, Cicero, Aristotle, Hippor-ates and others we might trace a ceristry through Homer, Cicero, Aristotle, Hippor-ates and others we might trace a ceristry through Homer, Cicero, Aristotle, Hippor-ates and others we might trace a ceristry through Homer, Cicero, Aristotle, Hippor-ates and others we night trace a ceristry through Homer, Cicero, Aristotle, Hippor-ates and others was heaven as the barbers, who practiced, in their crude fashion, the articles, and other necessary once practiced as an at and science, it appears to have been practically hold-letting, extra-tion of the thands of blacksmiths and barbers, who practiced, in their crude fashion, the arise to practice. Mod about one thousand years. So dentistry once practiced is the trace a ceristry once practiced is near the area barbers who practiced, in their crude fashion, the area and science, it appears to have been practicel barbers who practiced, in their crude fashion, the area delitorial board the operation was known a days down to the middle or dark ages, when, with the other arts and sciences, it appears to have been practically lost. This dark period, it is estimated, covered about one thousand years. So dentistry, once practiced as an art and science, fell into the hands of blacksmiths and barbers, who practiced, in their crude fashion, the dressing of wounds, blood-letting, extrac-tion of teeth, lancing of gums, etc., and the operator was known as the barber-surgeon. Generations passed before the dental specialist again appeared. Early in the seventeenth century dentistry was revived in Europe, but made little head-way. At the beginning of the eighteenth century M. De Chemant devised a form of porcelain bridge and artificial crown. The French people thought much of their teeth and it is claimed that Dr. Fuchard in 1785 was the first in more modern times to suggest gold leaf as a filling material for decaying teeth. It is to America, however, that credit is due for placing dentistry in a commanding position as a profession. Within a century America has developed dentistry in so marvelous a way that it would require an entire vol-ume to give the story. Modern dentistry is divided into opera-tive mechanical and end of the theory

In the seventeenth century dentistry was table dental college, must pass an exami-revived in Europe, but made little head-way. At the beginning of the eighteenth century M. De Chemant devised a form of porcelain bridge and artificial crown. The French people thought much of their teeth and it is claimed that Dr. Fuchard in 1785 was the first in more modern times to suggest gold leaf as a filling material for decaying teeth. It is to America, however, that credit is due for placing dentistry in a commanding position as a profession. Within a century America has developed dentistry in so marvelous a way that it would require an entire vol-ume to give the story. Modern dentistry is divided into opera-tive, mechanical and swagical. The thor-oughly qualified dentist is, therefore, to some extent, physician, surgeon, artist and mechanic. Operative dentistry embraces all operations at the chair for the preser-vation of the natural teeth, their regula-tion, and the placing of artificial teeth on natural roots. Prosthetic dentistry, the modern term for all procedures performed in the laboratory, embraces such work as

blind abscesses, it has been determined, frequently act as foci (centers of infec-tion) for serious physical trouble. The importance of dental service in the army and navy has been freely acknowl-edged by the government, and the value of the dental surgeon in his relationship to the military service is becoming increas-ingly evident. Particularly during our participation in the great world war in 1917-18, the value of dentistry to the na-tion was established. From an economic standpoint the importance of efficient den-tal service is recognized in the larger cities. It has been frequently demon-strated that people with healthy mouths do better work than those whose teeth are not given proper care. Consequently there are public clinics for school children and dentists retained by large industrial plants in the interest of their employees. **Dentition** (den-tish'un), the cutting of teeth. See Tecth. **Denton** (den'tun), a city, county seat arts (State College for Women) and North Texas State Normal College. It has pressed brick plant, flouring and cot-ton mills, etc. Pop. (1920) 7626. **D'Entrecasteaux** (dap-tr-kas-to'), a group of is-lands off the coast of British New Guinea.

In the provided print, nouring and correction milks, etc. Pop. (1920) 7626.
D'Entrecasteaux (dau-tr-kas-to'), a group of is and soft the coast of British New Guinea (Papua). Total area, 1200 sq. miles.
Denudation (de-na-dá'shun), in geology of occasional floods.
Denver (den'ver), the capital of Color of occasional floods.
Denver (den'ver), the capital of Color rado, county seat of Denver (den'ver), the largest even the Missouri and the Pacific (d'o-dar), DEDDA CEDAR, or Coust. It is the wholesale and retail trading mart for the vast Rocky Mountain retain the special metals, including tungsten, molybelnum, etc., as well as the vast oil shale mountains of the setter. Its manufacturing to the state. Its manufacturing to the state. Its manufacturing to the state. Its manufacturing the setimated at \$100,000.000 annually. The live stock and packing industry of Denver represents an investment of Colerado granite; the State Museum Building, the municipal auditorium, with its great organ; the Denver University (founded as the Colorado Seminary in State Capital, costing \$2,800,000, bailt of Colorado granite; the State Museum Building, the municipal auditorium, with its great organ; the Denver University (founded as the Colorado Seminary in State Capital costing \$2,800,000, bailt of Colorado granite; the State Museum Building, the municipal auditorium, with its great organ; the Denver University (founded as the Colorado Seminary in State Capital costing \$2,800,000, bailt of Colorado granite; the State Museum Building, the municipal auditorium, with its great organ; the Denver University (founded as the Colorado Seminary in State, Capital of Colorado Seminary in State, Capital costing \$2,800,000, bailt of Colorado seminary in State, Capital costing \$2,800,000, bailt of Colorado granite; the State Museum Building, the municipal auditorium, with its great organ; the Denver University (capital costing \$2,800,000, bailt of Colorado seminary in State Capital costing \$2,800,000, bailt

1864, reorganized as the University of Denver, 1880), and many beautiful schools and churches. It is situated at an eleva-tion of one mile above sea level, and th-climate is dry and salubrious. It is 15 miles E. of the Rocky Mountains and is the gateway to 12 national purks and 32 national monuments. The city was found-ed in 1858 and named for J. W. Denver, governor of Kansas. Pop. (1900) 133.-859; (1910) 213,381; (1920) 256,369. Denver, University of, an institu-bigher learning, founded in 1864, at Den-

stornov in Natures. For (1900) 133, 381; (1920) 256, 369.
Denver, University of, an institution of the institution of the second of the se

born in 1728. He afterwards distinguished himself in the Seven Years' war, then went to London as secretary of the French legation, and ultimately became minister plenipotentiary. Having quar-reled with the French government, he lived fourteen years in London in a kind of banishment. During these years he had occasionally dressed and passed as a female, and about this time his sex began to be doubted. In 1777 he returned to France, was ordered to dress as a woman, and continued to do so both there and after he returned to England (in 1785), where he died in great poverty in 1810, being then regarded by everyone as a female.

Deontology (ds-on-tol'd-ji), or the science of duty; the term useu by certain philosophic schools (Bentham, Spencer, etc.) to denote their doctrine of ethics. Department

term used by certain philosophic schools (Bentham, Spencer, etc.) to denote their octrine of ethics. Department (de-part'ment), a sub-division of executive revenment, under a subordinate officer. In the United States the government interior, war, navy, treasury, post-office, agriculture and commerce and abor, the heads of which form the Ad-government is conducted in three sepa-rate departments, -the legislative, judicial into military departments, each under an officer appointed by the President. The Pauw (de-paw'), a university situ-founded by the Indiana Conference of the founded by the Indiana Subury University intil 1884 when the name was chauged in accognition of large bequests from washington C. De Pauw. Besides the college of liberal arts there were schools of medicine, law, theology, pedagogy, music and art, but only the college of iberal arts and the school of music are at present operating. There were in 1914 instructors and about 1000 students. De Pere (de per), a city of Brown for Kiene, Bay, theology, being factories, the (1884-), an American hydrokill, New York, He graduated for the field (1884-), an American hydrokill, New York, He graduated for the bey by the factories for New York and merican hydrokill, New York, He graduated for the hydrokill, New York, He grad

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the presidential nomination in the Repub-lican Convention of 1888. He was United States Senator from New York 1809-1011. His orations and humorous after-dinner speeches gained him high reputa-

Depew, a village of Erie Co., New York, 8 miles E. of Buffalo. It has a number of manufactures. Pop. (1920) 5850.

(1920) 5850. Depilatories (de-pil'a-tur-iz), appli-cations used to remove the hair from the body, especially the face and scalp, without injuring the texture of the skin. The celebrated rusma depilatory consists of quicklime and orpiment (ter-sulphyret of arsenic) boiled in water im-pregnated with a strong alkaline lye. Electrolysis is now employed, a fine needle being inserted at the root of each hair, thus destroying the root by the current. Deponent (de-pio'nent). (1) in gram-mar, a verb passive in form but active or neuter in signification. (2) In law, a person who makes an affidavit,

In law, a person who makes an affidavit,

or one who gives his testimony in a court of justice; a witness upon oath. **Deposit** (de-pos<sup>i</sup>t), in law, something given or entrusted to an-other as security for the performance of other as security for the performance of a contract, as a sum of money or a deed. In commerce, a deposit is generally either money received by banking or commercial companies with a view to employ it in their business, or documents, bonds, etc., lodged in security for loans. In the first case interest is usually paid to the de-positor. The receipt given by the banker for money deposited with him is called a *drpovit receipt*. **Deposit**, for med by the settling down of mud, gravel, stones, detritus, organic remains, etc., which had been held in sus-tension in water. **Deposition** (de-po-sish'un), in law, *Deposition* (de-po-sish'un), in law, court by a witness upon oath. It is also ased to signify by way of answer to interrogatories. Depositions are fre-quently taken conditionally, or de bene the parties are sick, aged, or going abroad, depositions are taken, to be read in court in case of their death or de-parture before the time for the trial to he held. **Deposition of a Clergyman**,

Deposition of a Clergyman,

the degradation of a clergyman from of-fice. divesting him (in churches which do not, like the Church of Rome, hold the indelible nature of orders) of all clerical character. See Degrication.

#### Dépôt

De Quincey (de quin'si), THOMAS, area 22,315 sq. miles. It is well watered an English author, the and fertile, and contains numerous of a Manchester merchant, born at towns and villages. Pop. 1,643,603, Greenhay, near Manchester, in 1785. In mostly Mohammedans. 1793 his father died, leaving the family **Derbend**, or DERENT (derbent'), a fortune of £30,000. After attending for some time the Bath and Manchester grammar schools, where he showed on the west shore of the Caspian, an precocious ability, especially in classical ancient place formerly belonging to studies, he importuned his guardian to Persia. The manufactures consist of send him to Oxford University, and on woolen stuffs, copper and iron ware, heing refused he ran away from school, rose-water, etc.; and there is some trade ultimately arriving in London in an in saffron, largely grown in the vicinity. absolutely destitute condition. His suff-Pop. 14.821. forings at this time he has described in bis Confessions of an English Opium Eatter. At length, in 1803, he matricu-bated to Oxford, and it was in the second Derwent, here crossed by an elegant year of his course here that he began bridge of three arches, 115 miles N. N. w. to take opium in order to alleviate London. It is pleasantly situated in severe neurable pains. On leaving a wide and fertile valley open to the college he settled at Grasmere, West- south, and is well and regularly built

DépôtDépôtOrder de Southey, and devoted himself to<br/>for a place where goods are received and<br/>itterary work. Here or in London he<br/>stored; hence in military matters, a<br/>remained till 1828, reading voraciously,<br/>are kept. The term is now usually ap-<br/>plied to those companies of a regiment<br/>which remain at home when the rest are<br/>way on foreign service.Mere or in London he<br/>stored; hence in military matters, and<br/>are mained till 1828, reading voraciously.<br/>Anight's Quarterly Magazine, and after<br/>way on foreign service.Mere or in London Magazine.<br/>From<br/>Walde to those companies of a regiment<br/>way on foreign service.Mere or in London Magazine.<br/>From<br/>Walde Continued to be his headquarters.<br/>Form this benefice on account of her-<br/>rest, misconduct, etc. It entails, of course,<br/>to a clerzy of the list of the list, of course,<br/>to a clerzy of the list of the list, of course,<br/>in clear character.Deprivation (deprivation of the clears.<br/>Cher Profundis (de pro-fundis), in<br/>the list is signify<br/>ing. 'Ou of the cleards are com-<br/>antited to the grave.Dera Ghazi Khan (der's gas's',<br/>stored to the grave, and stored to the grave.Deptford<br/>(detford), a parliamentary<br/>having to the lower of the<br/>to onties of Kent and Surrey, on the<br/>still the largest establishment of its kind.<br/>to the course of pottery, chemicals, soop, etc.Dera Issue of 232,331, half Hindus<br/>and a pop. of 232,331, half Hindus<br/>and a pop. of 232,331, half Hindus and<br/>a tas a pop. of 223,231, half Hindus and<br/>and a pop. of 223,231, half Hindus and<br/>a stare of but of the conduct, the weat weatered.<br/>Thus he extences of course in Annone set weater and a pop. of 223,231, half Hindus and<br/>and a pop. of 223,231, the town for<br/>district lies north of the of User Ghazi<br/>Khan on both sides of the Indus, and the and an area of 92011 square miles<br/>

Berbard place for cotton goods. Pop. 31,737. Derajat (-jät'), a division or commis-sionership of Hindustan, in the Punjab, occupying part of the valley of the Indus, and comprising Dera Ghazi Khan, Dera Ismail Khan and Bannu; area 22,315 sq. miles. It is well watered and fertile, and contains numerous nostly Mohammedans. Derbend, or DERBENT (de r-bent'), Berbend, or DERBENT (de r-bent'), city of the government of Daghestan, on the west shore of the Caspian, an ancient place formerly belonging to Persia. The manufactures consist of woolen stuffs, copper and iron ware, rose-water, etc.; and there is some trade in saftron, largely grown in the vicinity. Pop. 14.821. Derby (der'bi, dir'bi), a municipal

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modern quarter. It has some fine buildings, among which are the set of All Saints, St. Alkmund of art, infirmary, etc. There is a very handsome free library and in. The principal manufactures is very handsome free library and in. The principal manufactures is very handsome free library and in. The principal manufactures is one of the oldest towns in ingdom, and is supposed to owe gin to a Roman station, Derventio, ed at Little Chester, on the op-side of the river. Under the it took the name of Deoraby. rdson, the novelist, was a native town. Pop. 123,433.—The county rby, or Derbyshire, in the center have a fertile soil, while the north-r portion is bleak, with a rocky irregular surface. Here is the fountains of the Feak. The Peak is 2000 feet high. The principal are the Derwent, the Trent, the the Erwash, the Dove and the r. Oats and turnips are important and dairy-husbandry is carried on large extent. Coal is abundant in sparts of the county, iron ore is plentiful, and lead, gypsum, zine, par, and other minerals are ob. The manufactures are silk, and lace, machinery and agricul-inglentiful, and lead, gypsum, zine, par, and other minerals are ob. The manufactures are agriculture manufacture of pins, heavy cast-for (derbi), a city of New Haven rincipal industries are agriculture e manufacture of pins, heavy cast-for Stockbridge. At first inclin-the House of Commons as r for Stockbridge. At first inclin-the Whig party, he joined Can-ministry in 1827, and in IS20 be-chief secretary for Ireland in Lord i government, greatly distinguish-inself by his speeches in favor of eform Bill in 1831-32. The op-n of ecclesiastical taxation. was

warmly advocated the abolition of slavery, and passed the act for this purpose in 1838; but in the following year a difference of opinion with his party as to the diversion of the surplus revenue of the Irish Church led him to



Edward, 14th Barl of Derby

Edward, 14th Earl of Derby join the Tories. In 1841 he became colo-nial secretary under Sir Robert Peel, but resigned on Peel's motion for repeal of the corn laws. In 1851 and 1858 he formed ministries, and again in 1866. Early in 1868 he resigned office. Earl Perby joined to greater ability as a states-man, and brilliant oratorical powers, a high degree of scholariy culture and literary ability.—EDWARD HENRY STAN-LEY, fitteenth earl of Derby, was born in 1826; educated at Rugby and Trinity College, Cambridge. In 1852 he was under secretary of foreign affairs; after-wards secretary of state for India. Under his superintendence the management of the British India empire was transferred from the East India Company to the government of Great Britain. In 1860 and also in 1874 he was secretary of state for foreign affairs. Lord Derby be-came a Liberal in 1879, and was secre-tary of state for the colonies under Mr. (iladstone from 1882 to 1885. He, how-ver, took a stand against Irish Home Rule in 1884, and afterwards ranked among Gladstone's opponents. He died in 1803. Derby, Osville Advisor at Kelloswille. New

imself by his speeches in favor of in 1883, leform Bill in 1831-32. The op-Derby, ORVILLE ADELERET, geologist, on led by O'Connell in the House of Derby, was born at Kellogsville, New ons was powerful and violent, but York, in 1851. He became an instructor y, while supporting a bill for the of geology at Cornell University, resigned i of the Irish Church and the re- in 1875 to join the geological survey of sful in totally defeating the agita- since 1907. He is the highest authority or the repeal of the Union. He in the geology and physical geography of

Derby

Brazil, on which he has written many

Brazil, on which he has written many valuable papers. Derby Day (där'bi då), the great annual London holiday, on which the horse-race for the stakes instituted by Lord Derby in 1780 is run. It always falls on a Wednesday. The race is run on Epson Downs, an exten-sive plain in the neighborhood of London. The entry-money for each subscriber is fifty guinens, and the stakes are run for by colts of three years. The entries are so numerous that the value of the stakes reaches several thousand pounds. On Epsom Downs, on the Derby Day, are as-sembled all classes, high and low. sembled all classes, high and low.

Derbyshire. See Derby.

Derbyshire Neck. See Goiter.

Derbyshire Spar. See Fluorspar.

**Derecske** (de-rech'ke), a town of Bihar, Soda is obtained from the neigh-boring swamps, Pop. 8767. **Dereham** (dër'am), EAST, a town in England, nearly in the center of the county of Norfolk, with manufactures of agricultural implements, iron-foundries, and a brisk trade. The poet Cowper was buried in the church

reon-roundries, and a brisk trade. The poet Cowper was buried in the church here, Pop. 5729, **Derelict** (der'e-likt), a vessel or any-thing relinquished or aban-doned at sea, but most commonly applied to a ship abandoned by the crew and left flucture abant

to a ship abandoned by the crew and left floating about. **Dergy**, LOUGH (long derg); (1) a lake about 3 miles long by 2½ broad at the broadest part, and studded with islets, one of which, called Station Island, has long been a great resort of Roman Catho-lie pilgrims; (2) an expansion of the river Shannon between County Tipperary and Counties Clare and Galway, about 24 miles long and averaging 2 miles in breadth. breadth.

Dermatophyte (der-mat'o-fit) Dermatophyte (dermatorif), a parasitic plant, chiefly of the lowest type of the Cryptogamia, infesting the cuticle and epidermis of men and other animals, and giving rise to various forms of skin-dis-

giving rise to various forms of skin-dis-ease, as ringworm, etc. **Dermestes** (der-mes'tez), a genus of coleopterous insects, one species of which (*D. lardarius*) is known by the name of bacon-beetle, and is often found in ill-kept ham or pork shops. **Dermot Mac Murragh** (der'mot m a k

Dermot Mac Murragh (dermot mara), the last Irish king of Leinster, attained the throne in 1140. Having carried off the wife of O'Ruarc, prince of Leitrim, he was attacked by the latter, and after a contest of some years driven out of Ireland (1167). He then did homage to the English king, and with the help of Richard, Earl of Pembroke, re-covered his kingdom, but died in the same year (1170), and was succeeded by Pembroke, who had married his daughter. Derna (der'na), a town in Barca, on the north coast of Africa. Pop. 7000, Derrick (der'ik), a hoisting ------

Derrick (der'ik), a hoisting apparatus consisting of a single mast or pole, supported by stays or guys, to which a swinging boom with pulleys is attached, used in building construction. etc. Floating derricks of the strongest construction, with an immense boom and numerous blocks, are also used. The boom of the derrick is hinged at its con-nection with the mast, whereas the jib of the crane is fastened rigidly to the mast. It is impossible to wholly distinguish be-tween cranes, derricks and derrick cranes. Derry (der'i), a town of Rockingham Co., New Hampshire, 12 miles s. F. of Manchester. Here is the Pinker-ton Academy. Among the manufactures are shoes, acctylene-gas machines, etc. Pop. (1920) 5382. Derry. See Londonderry. (der'ik), a hoisting apparatus

Derry. See Londonderry.

24 miles long and averaging 2 miles in breadth. Derham (der'am), WILLIAM, an Eng-bern in 1657; died in 1735. He was long rector of Upminster in Essex. His best-known works are entitled *Physico-The-*ology, Astro-Theology and Christo-The-ology. Derivation (der'ivâ'shun). See Derivation (der'ivâ'shun). See Skin, as distinguished from the cuticle, skin, as distinguished from the cuticle. Skin treats of the skin and its diseases. Dermatology (der-ma-tol%-ji), the Skin treats of the skin and its diseases.

#### Derwent



Traveling Dervish of Khorasan

interpretation of dreams and the cure of diseases.

**Derwent** (der'went), the name of four rivers in England, in Derby-shire, Yorkshire, Durham and Cumber-land, respectively, the last draining Der-wentwater Lake. Also a river in Tasmania.

Tasmania. Derwentwater, or KESWICK LAKE, Cumberland, England, in the vale of Keswick. It is about 3 miles in length and 1½ in breadth, and stretches from Skiddaw on the north to the hills of Borrowdale. Near the northeast corner is the celebrated cascade of Lodore. Its waters are carried to the sea by the Derwent. Derwent.

Waters are chirited to the sea by the in 1788 was put at the head of the great Derwent. Derwent. Derwentwater, JAMES RATCLIFFE, Iddel Dieu in Paris. Here he founded a surgical school, in which many of the most eminent surgeons of Europe were ducated. Descant (deskant), in music, an addi-tion of a part or parts to a subject or melody, a branch of musical but was forced, along with the other composition which preceded the more Jacobite nobles, to surrender at discre-tion on November 13th. He was ex-cented on Tower Hill, February 24, 1716, eleventh or beginning of the twelfth cen-try as a private soldier, distin-ruished himself highly, and was eventu-ally transferred to the civil service, in educated at the Jesuit College of La which he obtained the highest offices. In Flèche, where he showed great talent.

they work themselves into a frenzy and 1803 he retired from public life and de-sometimes fall down foaming at the voted himself entirely to poetry. One mouth. They are credited with miracu- of his most beautiful poems is the Ods lous powers, and are consulted for the Bog, or Address to the Deity. He died in 1816.

in 1816. **Desaguadero** (des-å-g wå-då'rö), a valley of the same name, issuing from Lake Titicaca, and carrying its waters into Lake Aullagas. Also a river in the Argentine Confederation flowing into Lake Revedero Grande, and separating the provinces of San Juan and Mendoza. Desaguadero significs in Spanish 'a channel of outle.'

Desguadero significs in Spanish 'a channel of outle'.' Desguadero significs in Spanish 'a channel of outle'.' Desaix de Veygoux (dé-să dé vă-G), Louis CHABLESANTOINE, a distinguished French general, born in 1768 at 8t. Hilaire d'Ayat, in Auvergne. He was of noble family, and entered the army as a sublieutenant. He distinguished him-self greatly in 1704 under Pichegru, and two years tater with the army of the Rhine under Moreau. In 1707 he ac-companied Bonaparte to Egypt, and was very successful in reducing Upper Egypt. After the Treaty of El Arish he fol-lowed Bonaparte to Italy, took command of the corps of reserve, and, arriving on the field of Marengo at a critical mo-ment, decided the victory by a brilliant charge, June 14, 1800. He himself fell, mortally wounded by a cannon shot. Desault (de-sö), Pizzaz Joszrm, one of the most celebrated sur-geons of France, was born in 1744, and died in 1705. After some experience in the military hospital at Béfort he went to Paris in 1704, studied under Petit, and two years afterwards became a lecturer on his own account. His reputation soou increased, and he became principal sur-geon in the hospital De la Charité, and in 1788 was put at the head of the great Hotel Dieu in Paris. Here he founded a surgical school, in which many of the most eminent surgeons of Europe were cducated. Descant (des'kant), in music, an addi-

#### Descartes

#### Descent

<text><text><text><text><text><text><text> **Descent** Ite entered the military profession and served in Holland and in Bavaria. In 1021 he left the army, and after a variety of travels finally settled in Holland, and devoted himself to philosophical inquiries. Descartes, seeing the errors and incon-sistencies in which other philosophers had involved themselves, determined to build up a system anew for himself, divesting himself first of all the beliefs he had acquired by education or other-wise, and resolving to accept as true only what could stand the test of reason. Proceeding in this way he found (*Meditationcs de Prima Philosophia*) that there was one thing that he could not doubt or divest himself of the belief of, and that was the existence of him-self as a thinking being, and this ultimate certainty he expressed in the celebrated phrase 'Cogito, crgo sum' (I think, there-fore I am). Here, then, he believed he had found the test of truth. Starting from this point Descartes found the same kind of certainty in such propositions as these: that the thinking being or soul differs from the body (whose existence consists in space and extension) by its simplicity and immateriality and by the freedom that pertains to it; that every perception of the soul is not distinct; that this imperfection of its own leads it to the idea of an absolutely perfect being; and from this last idea he deduces all further knowledge of the truth. Des-artex also contributed greatly to the advancement of mathematics and physics. The higher departments of geometry were grantly extended by him. His system of his time, though long since exploded. It rested on the hypothesis of celestial matter, by which he accounted for the motion of the planets (*Principles* and methods of philosophizing. In 1617 the French court granted him a pension of 5000 livres, and two years later, on the invitation of Christina of Sweden, he went to Stockholm, where he died in 1650. **Descent** (desen t'), in law, is the

**Desful.** See Disful. **Deshoulières** (dā-söl-yār), ANTOI-METTE DU LIGIER DE LAGARDE, a French lady of much literary reputation in the seventeenth century; born in 1634; died in 1604. She was the center of attraction in the best circles of the period, and was elected a member of several learned societies. Among her works are odes, eclogues, idyls, and a tragedy, Genseric. **Desiccation** (des-i-kā'shun), a proc-ess of dispelling moist-ure by the use of air, heat, or chemical agents, such as chloride of calcium, quick-lime, oil of vitriol and fused carbonate of potash.—Desiccation cracks, in geo-ogy, are the fissures caused in clayey beds by the sun's heat, and seen in various rock stratu. The in (distinct)

India, of potable - Desircation cracks, in geology, are the fissures caused in clayey beds by the sum's heat, and seen in presign (dezin'), thought, arrangements of potate of lowa and of Polk various rock strata.
 Design (dezin'), thought, arrangements of potable of the state of lowa and of Polk turing and trading city. A geolagy is a composition of new potention, in works of art. A geolaging is a composition of new potention, in geolaging is a composition of new potention, a result of a first thought; or it may be simply an imperfect sketch, as a record of a first thought; or it may be simply an imperfect sketch, as a record of a first thought; or it may be a fully matured work, as a cartoon in preparation for freeco painting, or a freedom of a first thought; or it may be simply and in relation to the state a book.
 Design, Schools of, schools where its industrial application rather than its esthetic side. They may be regarded as intermediate between schools of technology, in which the designing is of strictly mechanical nature, architecture excepted and schools for the training of artists who decoration and the history of art, especially in its decorative aspect; copying ing for textile fabrics, wall-paper, standed free-hand glass, pottery, leather work, book covers, class in Minnesota and joins the Miser of the size of the fores, wall-paper, standed instruction is a decorative aspect; copying for textile fabrics, wall-paper, standed instruction is and variation of the standed instruction in the basic of design structure standing in the best examples of designing. To this is added instruction in the basic and variation of the stand of the stand of the stand of the stand the design original design in the below Kookuk. It is about to promote the development of the structure in Minnesota and drains an area of 14,500 sq. miles.

Desertion (in the states of the period of time the School of Design for Women, in Phil-constitutes a ground of divorce, though adelphia; the School of Industrial Art of they differ as to the period of time the Pennsylvania Museum, also of Phila-which must elapse before action can be despited.
 Desful. See Disful.

Desman (des'man). See Musk-rat.

Desmidiacese (desmid-i-d'se-d), DES-MIDIE'S, a nat. order of microscopic, fresh-water, confervoid Algæ. They are green gelatinous plants composed of variously forced cells hav-ing a bilateral symmetry, which are either free, or in linear series, or col-lected into bundles or into starlike groups, and imbedded in a common gelat-inous coat. Desmidiacese differ from Diatomacces in their green color and ab-sence of silex. ence of silex.

Desmodium (des-mö'di-um) of plants. m), a genus See Moring Plant.

#### Desna

or 1762, was conspicuous during the first period of the French revolution. He was among the most notable of the pam-phleteers and orators who urged the mutli-tude forward in the path of revolution. Having become closely connected with Danton and the party of opposition to Robespierre, and inveighing against the reign of blood and terror, he was arrested on the order of the latter on March 30, 1794, tried on the 2d of April, and exe-cuted on the 5th. **Degna** (dyes-nd'), a river in Russia,

cuted on the 5th. **Desna** (dyes-nd'), a river in Russia, which rises in the government of, and about 50 miles east of the town of Smolensk, flows through the govern-ments of Orel and Tchernigov till it joins the Dnieper near Kiev. It is 500 miles in length and navigable nearly throughout. **De Soto** (do miles)

Since in Feight and navigable hearly throughout. **De Soto** (dö sö'tö), HEBNANDO, a Spanish explorer and dis-coverer of the Mississippi, born about 1496; died in 1542. He accompanied ex-peditions to the New World under Davila and Pizarro, and played a distinguished part in the conquest of Peru. In 1539 he led an expedition to Florida, whence after many difficulties he penetrated to and beyond the Mississippi. Here he was attacked with fever and died.—The name De Soto has been given to a county in the N. w. of Mississippi, in the locality of his discovery of the Mississippi River. River.

River. De Soto, a city of Jefferson Co., Missouri, 43 miles s. by w. of St. Louis. Lead, zinc and tiff ore are produced in the vicinity, and it has rail-road machine shops, a large shoe factory. Exports grain, lead and tiff. Pop. 5003. Despot (despot; Greek, despotis), originally a master, a lord; at a later period it became an honorary title which the Greek emperors gave to their sons and sone-in-law when governors of provinces. At present despot means an absolute ruler, as the Emperor of Russia, and in a narrower sense a tyrannous one. one.

one. Dessalines (dà-sà-lên), JEAN JACQUES is invincibly determined either—according is unicibly determined either is unicibly determined either—according is unicibly determined either is unicibly determined either

(1804) was declared emperor with the title of Jacques I. But his rule was savage and oppressive, and, October 17, 1806, he was slain by one of his soldiers. **Dessau** (des'ou), a town in Germany. capital of the duchy of An-halt, in a beautiful valley on the left bank of the Mulde, mostly well built, with fine squares and many handsome buildings. The manufactures consist of woolens, woolen yarn, carpets, machinery, tobacco. etc. Pop. 55,134. De Stendhal. See Beyle, Marie

See Beyle, Marie

etc. Pop. 55,134. De Stendhal. See Beyle, Marie-Henri. Desterro (des-terő), now FLORIANAP-OLIS, a seaport of Brazil, capital of the province of Santa-Catha-rina. The harbor is, next to that of Rio de Janeiro, the best on the Brazilian coast. Pop. 30,687. Destroyer. A small, well-armed and very fast war-vessel or-iginally designed to overtake and destroy torpedo boats (which see), but in the European war employed for navy wout duty and for the destruction of subma-rines and other minor naval work. Destutt de Tracy (da-tü de trà-se). ANTOINE LOUIS CLAUDE, a French philosophical writer, born in 1754. of a family of Scot-tish extraction; died in 1830. As a philosopher he belonged to the Sensationalists school, and considered all our knowledge to be derived originally from sensation. Among his chief works are Idéologie (1801), Logique (1805), Traité de la Volonté (1815). Detachment (de-tach'ment), a body of troops selected from the main army for some special service. Detaille (dā-tá'y), JEANNE BAPTISTE

DetaChment (detachment), a body of troops selected from the main army for some special service. Detaille (ddi-ta'y), JEANNE BAPTISTE EDUTARD, a French military and historical painter, born in Paris, Oc-tober 5, 1848; died there, December 24, 1912. He was a pupil of Meissonier. Determinism (det et a'min-izm), a philosophical theory which holds that the will is not free, but is invincibly determined either—according to the older form of the theory—by a motive furnished by Providence, or—ac-cording to the modern form—by the ag-gregation of inherited qualities and ten-dencies.



C Ewing Galloway, N. Y.

GRAND CIRCUS PARK, DETROIT A picturesque view in one of the greatest of American cities, now the fourth in population in the United States.

# **Detonating Powders**

colossel statute has been erected to the famous warrior Hermann or Arminius who overthrew the Roman general Varus and his legions in a battle which was fought near this place. Pop. 13,164. **Detonating Powders** (d e t'u-nät-ing), certain chemical compounds which, on being ex-posed to heat or anddonly struck, explode chemical compounds which, on being ex-posed to heat or suddenly struck, explode with a loud report, owing to one or more of the constituent parts, suddenly assum-ing the gaseous state. The chloride and iodide of nitrogen are very powerful det-onating substances. The compounds of ammonia with silver and gold, fulminate of silver and of mercury detonate by slight friction, by means of heat, electric-ity, or sulphuric acid.

ity, or sulphuric acid. Detonating Tube, a species of eu-diometer, being a stout glass tube used in chemical anaa stout gass tube used in chemical ana-lysis for detonating gaseous bodies. It is generally graduated into centesimal parts, and perforated by two opposed wires for the purpose of passing an electric spark through the gases which are introduced into it, and which are confined within it over mercury and weter water.

are introduced into it, and which are iromethelis and failer of ifelien, ances-confined within it over mercury and tor of the Hellenes. According to tradi-tion, he saved himself and his wife, ion, he saved himself and his wife. Pertoit, Michigan, situated on the sent upon the earth by building a ship Detroit River, which passes more tonnage which rested upon Mount Parnasus, than any other waterway in the world, To repair the loss of mankind they were sometimes exceeding 100,000,000 actual freight tons in a single season. The city which rested upon Mount Parnasus, freight estuary. Its railroad trans-navigable estuary. Its railroad trans-to f the Grank Trunk, three of the Pere portation facilities are covered by five inses of the Michigan Central system, four resorting to supernatural causes to ex-of the Grank Trunk, three of the Pere pain phenomena that one is not able to Marquette, and one each of the Pernsyl-scrum, Wahash, Lake Shore, Canadian prosperous and beautiful city, with wide streets, 31 parks, the largest being 705 acres in extent, and a boulevard, 12 miles to those books of Scripture that were ad-mitted into the canna firer the rest, some of office buildings. It has a large number of the Beile extrans and potier with wide the Federal Building, City Hall and the nearly 3000 establishments, employ-ing 310,000 persons and with an output destreros, second at \$1,450,000,000. The automobile factories alone have 140,000 and Numbers, and cancel to the lost of the books of Scripture that were ad-mitted into the second scile. (Greek, sing 31,000 persons and with an output crue and any stress are manufacturing, with nearly 3000 establishments, employ-and the states for the product. Some, a lawl from its in 1919 valued at \$1,450,000,000. The consisting in part of a restatement of the automobile factories alone have 140,000 and Numbers, and containing also. In error. Other large branches of manufac-adminition not previously given, an as-ings, brass products, pharmaceutical pre-artions, sola ash, sto

and tobacco products. Detroit was settled by the Franch in 1701, was captured by the British in 1760 and was surrendered to the United States in 1798. Pop. (1900) 285.704; (1910) 465.766; (1920) 998,739. with Hamtramck district and Highland Park, 1.088.943. It is now the fourth city in population in the United States. States.

fourth city in population in the United States. Detroit River, or STRAIT or ST. Strait of North America, which runs from Lake St. Clair to Lake Erie. It is 28 miles kong, and of sufficient deoth for the navigation of large vessels. It is about 3/4 mile wide opposite Detroit and enlarges as it descends. An immense lake trade passes through it. Dettingen (det'ing-en), the name of several places in Germany, among which is a village of Bavaria, on the right bank of the Main. famous for the victory (ained by the English and Austrians under George II of England over the French in 1743. Deucalion (di-ka'li-on), in Greek mythology, the son of Prometheus and father of Hellen, ances-tor of the Hellenes. According to tradi-tion, he saved himself ard his wife, Pyrtha, from a deluge which Zeus had sent upon the earth by building a ship which rested upon Mount Parnasus. To repair the loss of mankind they were directed by an oracle to throw stone be-hind them, which became men and women.

Deuteronomy

**Deutz** (doits), formerly a town of Prussia, now included in the city of Cologne. It lies on the right bank of the river and is connected with Cologne proper by bridges. It was strongly fort-fied as part of the defenses of Cologne, forming a bridgehead. It has porcelain, glass and other manufactures. **Deutzia** (dut'zi-a), a genus of plants, of the saxifrage family, which produce beautiful white flowers. They are small shrubs indigenous to China and Japan and Northern India. **Deux-Ponts** (den-pou; 'two bridges'), the French name for the town of Zweibrucken (q, v.).

Deux-ronts the French name for the town of Zweibrucken (q. v.). De Valera (dē va-lē'ra), EAMON, an Irish statesman, born in New York in 1883; his father was Span-ish, his mother Irish. He was graduated from the University of Ireland and was Sinn Fein member of Parliament from East Clare from 1917. He was elected President of the Irish 'Republic' in 1919. Devanagari (dà-va-näga-rē), a name of the Sanskrit alpha-hot

attraction being replaced by the effect of rapid rotation. In this the compass is inclosed in a vacuum and rotating at great speed produces inertia, the revolv-ing body vigorously retaining the direc-tion of its axis of movement while at the same time it tends to assume that of the earth's axis, so that its line of whirl becomes the same as that of the earth, pointing in the same direction as the magnet. The gyro-compass is now used on all commercial ships, battleships and submarines. It points to the true pole and with a force much stronger than that of the magnet. **Device** (devis'), a name common to all figures, ciphers, characters, rebuses, mottoes, etc., which are adopted by a person or a family by way of badge or distinctive emblem, often a repre-sentation of some natural body, with a motto or sentence applied in a figurative senter.

motto or sentence applied in a figurative

# Devil

lieved in a power connected with the con-secration of priests to drive out evil spirits. (See *Esorcism.*) The belief in evil spirts, witches, etc., was in the seven-teenth century so common that they be-came the objects of judicial process. With the progress of the natural sciences, however, in the eighteenth century many wonderful phenomena became explained, and less was heard of witchcraft. **Devil**, the machine through which cot-prepare it for the carding-machines; a teasing-machine.

easing-machine.

Devil, TABMANIAN. See Dasyure.

Devil, TASMANIAN. See Dasyare. Devil-fish, the popular name of va-being the angler (which see). Among others the name is given to several large species of ray occasionally captured on the Atlantic and l'acific coasts of Amer-ica, and much dreaded by divers, whom they are said to devour after enveloping them in their vast wings. During gales of wind or from strong currents these immense fish are driven into shoal water, and being unable to extricate themselves, full an easy prey to the vigilance of the fisherman, who obtain considerable quan-tities of oil from their livers. Devil's Advocate. See Advocatus Diaboli. Devil's Bit, the common name of

Devil's Bit, the common name of a species of a cabious (Scabiosa succisa), nat. order Dipsacese. It has heads of blue flowers nearly globular, and a fleshy root, which is, as it were, cut off abruptly. See Scabious. Devil's Bridge (Teufelsbrücke), a bridge in Switzer-hard built over the Reuss, from mountain

land built over the Reuss, from mountain to mountain, on the road over St. Gothard. Devil's Coach Horse. See Rove Beetles.

Devil's Island, a small rocky island off French Guiana. Here Dreyfuss (q. v.) was confined. Devil's Lake, a city, county seat of Ramsey Co., North Dakota, 90 miles w. of Grand Forks, on a lake of the same name. It has creama lake of the same name. It has cream-cries, car shops, etc. Here is the State school for the deaf. Pop. 5140.

Devil's Punchbowl, a small lake of Ireland, near the Lakes of Killarney, between 2000 and

the Lakes of Killarney, 553 3000 feet above the sea. Devil's Wall, in the south of Ger-many, a structure Roman ranspart, a Roman ranspart, and the south of the sea

tribes. Remain's of it are found from the Danube, in Bavaria, to Bonn on the Rhine.

Danube, in Bavaria, to Bonn on the Rhine. Devil-worship, the worship paid to spirit, a malignant deity, or the per-sonified evil principle in nature, by many of the primitive tribes of Asia, Africa and America, under the assumption that the good deity does not trouble himself about the world; or that the powers of evil are as mighty as the powers of good, and have in consequence to be bribed and reconciled. There is a soct called devil-worshipers inhabiting Turkish and Russian Armenia and the valley of the Tigris, who pay respect to the devil, to Christ, and to Allah or the supreme being, and also worship the sun. Devise (devis), in law, usually the disposition of real estate by will, but also sometimes applied to any gift by will, whether of real or personal estate. Devizes iand county of Wilts final

estate. **Devizes** (de-vi'zez), a town in Eng-situated on a commanding eminence, 82 miles west by south of London. The name is derived from the Latin divise terror, ('divided lands'), because the an-cient castle of Devizes was built at the meeting-place of three different manora. Agricultural engines and implements are made, and malting is carried on. Pop. (1911) 6741. Demon DEVONSHIPE (dev'un-sher).

(1911) 6741. **Devon**, DEvoNSHIRE (dev'un-shër), a of England, its northern coast being on the Bristol Channel and its southern on the English Channel; area, 2580 square miles, the county being the third largest of England. From Exeter to the confines of Cornwall extends the wide and barren tract called Dartmoor; but the vale of Exeter, comprising from 120,000 to 130,-000 acres, and the south extremity of the county called *South Hams*. Imited by a line drawn from Torbay to Plymouth Sound, are among the most fertile dis-tricts of England. Tin, lead, iron, copper, manganese, granite and the clay used by tricts of England. 11h, lead, iron, copper, manganese, granite and the clay used by potters and pipemakers are the chief min-eral products. The geological formation of the Old Red Sandstone is so largely developed that the term Devonian has to some extent become its synonym Agriculture is in a somewhat backward 3000 feet above the sea. Agriculture is in a somewhat backward Devil's Wall, in the south of Ger-state, owing, probably, to the general pref-which was originally a Roman ranpart, which the extent and richness of its grass intended to protect the Roman settlements lands make the county most suitable. on the left bank of the Danube and on Wheat, barley, becaus, peas and potatoes the right bank of the Rhine, against are the principal crops. About three-the inroads of the Teutonic and other fourths of the county are under crops or



#### **Devonian System**

in pasture. There is a large trade in butter, cheese, and live stock and the 'clotted' cream and cider of Devonshire are well known as specialties of the county. Pop. (1911) 701,981.

county. Pop. (1911) 701,081. Devonian System (de-vó'ni an), in geology, a name originally given to rocks of Devonshire and Cornwall, intermediate between the Silurian and Carboniferous strata and consisting of sandstones of different colors, calcarcous slates and limestones, etc. They are divided into lower, middle and upper groups, all containing fossils, but the middle most abounding in them, in-cluding corals, crinoids, crustaceans, mol-lusca (especially brachiopods), and ceph-nalopods. Devonian rocks orccupy a large area in Central Europe, as well as in the United States, Eastern Canada and Nova Scotia. The term has been often used as equivalent to Old Red Sand-stone. stone.

Devonshire, VICTOB CHRISTIAN WILLIAM CAVENDISH. 9th DUKE OF (1868-), GOVERNOT Gen-eral of Canada from 1916. He was Mem-ber of Parliament from 1891 to 1908; financial seey, to the Treasury, 1903-05.

**Devons**hire. See Devon.

**Dew** (dū) is a deposition of water from the atmosphere upon the surface of the earth in the form of minute globules. The earth absorbs heat during the day; at sunset its supply is cut off, but the radiation continues. Grass and foliage, being radiators, lose their heat, and the moisture of the atmosphere is con-densed by contact therewith. See Dev-noint.

Dewas (dā-wäs'), a state of Contral India. Pop. 142,162. Its capi-tal, of the same name, has a pop. of 15,000.

15,000. **De Wet.** 1854, was the chief command-ant of the Orange Free State army dur-ing the Boer War (1809-1902). In this long-drawn-out contest he distinguished himself by great ability and daring. Though many efforts were made to cap-ture him, he always succeeded in out-watting his pursuers. He wrote *Thecc Years of War*. During the World War he headed an insurrection but was cap-tured and imprisoned. Died Feb. 4, 1922 **Devicey** GFORGE, naval officer, born in

De Witt

blackberry.

Though many efforts were made to cap-ture him, he always succeeded in out-witting his pursuers. He wrote Three **De Witt**, Holland, celebrated as a Years of War. During the World War he headed an insurrection but was cap-tured and imprisoned. Died Feb. 4, 1922 **Dewey**, GEORGE, naval officer, born in the became the leader of the political to the Naval Academy in 1857, appeinted party opposed to the Prince of Orange, to the Naval Academy in 1857. On the and in 1655 was made grand-pensionary outbreak of the Civil war, he was com-missioned as lieutenant and assigned to the Mississippi, which, under Farragut, took part in forcing the Mississippi In 1672 Louis XIV invaded the Spanish



# **Dew-point**

Dholka

Netherlands and involved. Holland in rotate to the left, are called *lavo-com-*war. De Witt's popularity, already on pounds. The decline, suffered still further in the tronbles thus occasioned, and he felt it necessary to resign his office of grand-pensionary. At this time his brother Cornelius, who had been tried and put to torture for conspiring against the life of the young Prince of Orange. lay in prison. Jan de Witt went to visit him, when a tumult suddenly arose among the people, and both brothers were murdered. Ane-ust 20, 1672. De Witt was a man ot high character, simple and modest in all his relations. his relations.

man character, simple and modest in all his relations. **Dew-point**, the temperature at which temperature of the air has been reduced by radiation to the dew-point, dew is deposited and an amount of heat set free which raises the temperature of the air. Thus the dew-point will indicate what the minimum temperature of the night is likely to be, a knowledge of which is useful to the horticulturist. **Dewsbury** (düzber-i), a town of Riding of Yorkshire, and 30 miles south-west of the town of York, chiefly engaged in the manufacture of heavy wooler cloths, including blankets, carpets, rugs, flannels, baizes, etc. Pop. (1911) 53, 55.



Innuels, baizes, etc. Pop. (1911) 53,-558. Dexter (deks'ter), a chiefly used in heraldry. The dexter chief point is a point in the right-hand upper corner of the shield, being in the dexter A. Dexter chief extremity of the chief. Dextrine (deks'trin; C4HaO2), the soluble or gummy matter into which starch can be converted by the action of dilute acids or malt extract, or by heat. It is remarkable for the ex-tent to which it turns the plane of polarization to the right hand, whence its name. Its composition is the same as that of starch. By the action of hot diluted acids dextrine is finally con-verted into grape-sugar. It is white, insipid, and without smell. It is a good substitute for gum-arabie in med-icine. good icine.

icine. Dextro-Compounds (deks'trô), bod-ics which cause the plane of a ray of polarized light to trogheose, tartaric acid, malic acid, cin-chonine, and many other bodies have this property : while others, which have the approxite effect, of causing te plane to Gujarat. Pop. about 15,000.

Dhalak (dhà-làk'), an archipelago of the Red Sea, off the coast of Abyssinia. It consists of nearly 100 rocks and islets, mostly uninhabited, clustering round the island of Dhalak el-Kebir, which is about 35 miles long by 30 broad. This island possesses a pearltishery.

Dhar (dhär), a small possenses a pear-fishery. Dhar (dhär), a small pative state in Central India, with an area of about 1740 square miles. The soil is fer-tile, and yields wheat, rice, opium, etc. Pop. (1901) 142,115. The capital is of the same name, is surrounded by a mud wall, and has some striking buildings. Pop. (1901) 17,702. Dharangaon (där-an'ga-on), a town of Hindustan, Coim-batore district, Bombay. Pop. 14,000. Dharapuram (där-a-pu'ram), a town of Hindustan, Coim-batore district, Madras. Pop. 8000. Dharmkot (därm'kot), a town of In-dia, in Firozpur district, Punjab. Pop. (SMM).

Dilarinikou dia. in Firozpur district, Punjab. Pop. (2009). Dharmsala (dirm'sa-la). a hill sta-tion with military can-tonments, in Kangra district, Punjab, India. Pop. (3071. Dharwar (där-wär'), the chief town Bombay Presidency, Hindustan, a strag-gling place with some trade. There is a fort well planned and strongly situated. but now falling into ruins, and military cantonments at 2 miles' distance. Pop. 31,270. The Dharwar district has an area of 45355 square miles; pop. (1901) 1,113,218. Dhole (dol), the Cingalese name for dukhuensis). It is distinguished from the genus Cania, or dog proper, by its having one molar fewer in either side of rufous-fawn color, in size between a wolf and a jackal, and hunts always in packs. Dholera (dbö-la're), a scaport of H i nd ustan, Bombay Pres-idency, one of the chief cotion-marts in the Gulf of Cambay. Pop. about 10,-000. Dholka (dbl'ka), a town of Hindu-

town of Hindu-bay Presidency, oldest towns in

Dholpur

(1901) 270,973. Dhulia (dö'le-ä), a town of Hindu-stan, Khandesh district, Bom-bay Presidency. Pop. about 25,000. Dhurra, DouraH (du'ra), East Indi-an millet, the seed of Sor-ghum culgdre, largely grown in India and after wheat the chief cereal crop of the Mediterranean region, being largely used in those countries by the laboring classes for food. Varieties are grown in many parts of Africa, one of them known as Kaffir corn. It does not make good bread, but is excellent for puddings and is pre-pared for food in various ways. The plant is closely allied to the sugar cane and is cultivated in the United States as a source of sugar. Diabase (dl'a-bas), a diorite or groon

plant is closely allied to the sugar cane and is cultivated in the United States as a source of sugar. Diabase (dfa-bås), a diorite or green-stone, a fine-grained, crystal-line-granular rock. Diabetes (dia-bê/tez), a disease of which the most remarkable symptoms are: a great increase in the quantity of urine, a voracious appetite, a stoppage of the cutaneous perspiration. thirst, emaciation, and great muscular debility. In true diabetes (diabetes mellitus) the composition of the urine is also greatly affected, an abundance of succharine matter (diabetic sugar) being found in it. This disease usually attacks persons of a debilitated constitution and often without any obvious cause. Tea. coffee, dry wines, spirits and bitter ale may be drunk. Milk should be taken only sparingly. The disease is essentially a chronic one, though it may quickly end in death. Research and experiment in the Rockefeller Institute of Medical Re-search have resulted in the discovery that diabetes is due to a defect in the opera-tion of the pancreas, causing the develop-ment of excess dextrose, a form of sugar, in the blood. Among the drugs employed by physicians in attempts to combat the disease are bromides and salicylates, arse-achie and opium. Some success has been achieved by reducing the diet to a mini-mum and starving out the disease. Car-behydrates or foods containing starch are eliminated from the patient's diet and a

(dôl'pör), a native state of of 8 or 10 per cent., and in some cases Central India, Rajputána; more.

through different mediums. Diadelphia (dl-a-del'fi-a), the name given by Linnæus to his seventcenth class of plan.s, distinguished

seventeente class of plants, distinguished by having their stamens united in two bundles by their ilaments. Diadem (dl'a-dem), an ancient orna-originally a head-band of fillet made of silk, linen, or wool, worn round the temples and forehead, the ends being tied behind and let fall on the neck, as seen in old representations of the diadem of the Indian Bacchus. Subsequently it was

the Indian Bacchus. Subsequently it was usually set with pearls and other pre-cious stones. The term is also used as equivalent to crown or coronet. Diæresis (dI-č're-sis). a separation of one syllable into two; also the mark (...) which shows that a second vowel is to be pronounced, as in ačrial.

In acriat. Diaglyphic (dl-a-glif'ik), a term ap-graving, etc., in which the objects are sunk into the general surface. Diagnosis (dl-ag-nö'sis), in medicine cases by their distinctive marks or symptoms; the discovery of the true na-ture and sent of a disease. Diagonal (dl-ag'onal), in geometry. a straight line drawn be-tween the opposite angles of a quadri-lateral figure.

mum and starving out the disease. Car-behydrates or foods containing starch are climinated from the patient's diet and a normal supply of fats and proteins alone is allowed. Diseases of the lungs are apt to attack a diabetic person and must be carefully gnarded against. Consult Al-len's *Glucosuria and Diabetes*. **Diabetic Sugar** (di-abët'ik), the sweet principle of diabetic urine. It is identical with extensive of equal distances. One of these a constituent of normal urine but in diabetes it may be present to the amount

#### Diagoras

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omitted. **Dial** (dl'al), or SUN-DIAL, an instru-ment for showing the hour of the day from the shadow thrown while the sun is shining by a stile or gnomon upon a graduated surface. This instrument was known in the earliest times by the Egyptians, Chaldeans and Hebrews. From those eastern nations it came to the Greeks. It was introduced into Rome during the first Punic war. Dials are of various construction, horizontal, inclined.

belp of the compasses such a scale medium of intercourse between well-facilitates the laying down of lines of educated people. Although the use of provincial dialects becomes inconvenient after a language has acquired a fixed literary standard, the study of such dialects is always valuable to the philo-orgist for the light they throw on the history of the language. The diffusion of education and of printed books has much dialects is always valuable to the philo-orgist for the light they throw on the history of the language. The diffusion of education and of printed books has much inter a y anguage. The diffusion of education and of printed books has much the educated classes of any country now speak each of them a uniform language. Dialectics (d1-a.e't it is), the old name of logic which treats of inevitable the prevailing polytheism, and sought to substitute the active powers of nature for the divinities of the Greeks. On this account he had to leave Atheus. Diagram (d1'a.gram), a figure or geometrical problems, or any illustrative figure in which outlines are chiefly pre-sented, and the details more or less omitted. Dial (d'al), or SUN-DIAL, an instru-ment for showing the hour of the sun is shining by a stile or gnomon upon

employed.

Dial (dial), or SUN-DIAL, an instru- and practice of mine-surveying in which day from the showing the hour of the sun is shining by a stile or gnomon upon a graduated surface. This instrument was known in the earliest times by the Egyptians, Chaldeans and Hebrews. From those eastern nations it came to the Greeks. It was introduced into Rome during the first Punic war. Dials are of various construction, horizontal, inclined, or upright, the principle in every case being to show the sun's distance from the meridian by means of the shadow cost by the stile or gnomon. The stile is made of the diurnal rotation. Consequently be considered as coinciding with the axis of the diurnal rotation. Consequently be so marked as to represent the hours of the day. The dial of course gives solar time, which, except on four days of then at a colony, different from that of a which diffuse with difficulty or not at all, well-regulated clock. Dials are now rather articles of curiosity or ornament than of use. Dialect (dia-lekt), the language of a tant colony, deviating either in its gram-mar. vocabulary, or pronunciation, from over a wood or guita-percha hoop, having the language of that part of the com-te a solar to a country, or a dis-tant colony, deviating either in its gram-men country whose idiom has been adopted as the literary language, and the allowed to float on a basin of water.

#### Dialysis

#### Diamagnetic

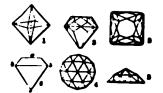
In a short time all the crystalloid bodies will have passed through the membran-ous septum into the pure water, while the colloid matter will remain almost entirely in the dialyzer.

entirely in the dialyzer. **Diamagnetic** (d f-a-magnet et'i k), a stances which, when under the influence of magnetism and freely suspended, take a position at right angles to the magnetic overidian, that is, point east and west. I rem the experiments of Faraday it ap-pears that all matter is subject to the magnetic force, arranging itself into two great divisions, the paramagnetic and diamagnetic. Among the former are two great divisions, the paramagnetic and diamagnetic. Among the former are iron, nickel, cobalt, platinum, palladium, ittanium, and a few other substances; and among the latter are bismuth, antimony, cadmium, copper, gold, lead, aroury, silver, tin, zine and most solid, liquid and gaseous substances. When a paramagnetic substance is suspended iquid and gaseous substances. When a paramagnetic substance is sustended treely between the poles of a powerful horseshee magnet it points in a line from one pole to the other, which Faraday terms the *axial line*. On the other hand, when a diagmagnetic substance is sus-pended in the same manner it is repelled alike by both poles, and assumes an equatorial direction, or a direction at right angles to the axial line. It has been supposed that the diamagnetic phenomena are a result of the superior magnetic force of the oxygen of the atmosphere. atmosphere.

**Diamantina** (dé-a-man-tô'na), a town of Brazil in the dia-mond district in the province of Minas Geraes, the inhabitants of which are al-most all engaged in the gold and diamond 'rade. Pop. 17,080.



colorless, perfectly clear, and peliucid. Such are said to be of the huest scater But diamonds are often blue, pink, green. are yellow, and such are highly prized it of a decided and equal tint through-out. The hardness of the diamond is such that nothing will scratch it, nor can it be cut but by itself. The valu-of a diamond is much enhanced by cutting facets upon it inclined at certain angle-to ente other m as to moduce the greatest of a difficult is inclined at certain angles to each other so as to produce the greatest possible play of color and luster. What is called the *brilliant* cut best brings out the beauty of the stone. Its upper or principal face is octagonal, surrounded by many facets. But this form of cutting requires an originally well-shaped stone. For other diamonds the rose cut is used. In this form six triangles are cut on the top so that their apices meet in a point called the summit. Round this are disposed other facets. Stones which are too thin to cut as row-dia-monds are cut as toble-diamonds, which have a very slight play of color. In the cut Fig. 2 is the vertical, and Fig. 3 the lateral appearance of a brilliant; Fig.



Diamonds, rough and variously cut

Dramma district in the province of Minas ferages, the inhabitants of which are al-most all engaged in the gold and diamond paramos of a rosecut diamond; in Fig. Trade, Pop. 17,980. Diameter the arbit the straight model are down through the straight for a role, and to being the two certer of a code and to being the two respects points of the straight for a role, and to being the two respects the and to being the two respects to an order and to being the two respects to an order and to be used the table; the part a b b, which the part b b c, such in the setting, is the projects from the setting, is the front, is the front, is the state respects to the length of the index respect to the length of the intervention of the operation of the intervention of the

### Diamond

#### mond

ieo, and other parts of the East:
ieo, and other parts of the East:
itmes in N. America and Australia;
the chief diamond fields of to-day arc
iil and Cape Colony, the center of latter being Kimberley in Griqua
i West. Diamonds were first disred in the latter in 1867, but since the output has amounted to over (000,000 in value. One of the largest onds known (weight 367 carats) found in Borneo about a century and belongs to the Rajah of Mattan. of the most celebrated is the Koh-i-(Mountain of Light), belonging to British erown. It weighed originally y 800 carats, but by subsequent reugs has been reduced to 103% carats. Orloff diamond, belonging to the eror of Russia, weighs 195 carats; Pitt diamond, among the French n jewels, 136½. The former, which from India, has been thought to originally formed part of the Kohrs stone. The largest Brazilian ond weighed 254½ carats and was to a brilliant of 125. Some of the h African diamonds are also very, one being found in 1893 weighing arats, or nearly half a pound. More the star of South Africa, called the Star of South Africa, een placed in King George's scepter, another, of 309 3-16 carats, in his n.

mond, in technical language, is the rhomboid—that is, a quad-e with equal sides and two obtuse я.

mond-beetle, the Entimus impterous insect belonging to the family ulionide or weevils.

mond-drill. See Boring.

mond Harbor, a port on the i River, about 38 miles by the rail-from Calcutta, formerly much used n anchorage for ships waiting for

mond Necklace, an affair of some note in th history immediately preceding the lution. See Antoinctte, Marie: La e: and Rohan, Louis

(dI-an'a), in mythology, an an-cient Italian goddess whom the stamens ins latterly identified with the Artömis, with whom she had vari-attributes in common, being the goddess of the moon and of the and having as attributes the cres-27--3

cent moon, bow, arrows and quiver. The name is a feminine form of Janus. She seems to have been originally the patron divinity of the Sabines and



Diana .- Antique statue in the Louvre

Latins. She was worshiped especially by women as presiding over births, no man being allowed to enter her temple. See Artemis.

being allowed to enter her temple. See Artemis. Diana-monkey (Cercopithecus Diana), a species of monkey found in Africa, and so named from the crescent shaped band on the forehead resembling the crescent moon, which was the symbol of Diana. Diana of Poitiers, Duchess of King Henry II of France and descended from the noble family of Poitiers, in Dauphiny. At an early age she married the Grand-seneschal of Normandy, Louis de Brezé, became a widow at thirty-one, and some time after the mistress of the young Duke of Orleans. On his accession to the throne, in 1547, as Henry II, Diana continued to exercise an absolute empire over him till his death in 1559. After that event she retired to her castle of Anct, where she died in 1568. Diandria (dI-an'dri-a), the second class in the Linnæan sys-tem, comprehending all genera with flowers having only two stamens, provided the stamens are neither united at their base.

tem, comprehending all genera with nowers having only two stamens, provided the stamens are neither united at their base, nor combined with the style and stigma, nor separated from the pistil. **Dianthus** (dl-an'thus), the genus of flowers to which the pink



#### Diapason

Diapason (di-a-pā'zun), in music, the concord of the first and last notes of an octave. The word is also

**Diapason** (dra-pit zun), in music, the motes of an octave. The word is also used for the most important foundation-stops of an organ. They are of several kinds, as open diapason, stopped diapason, double diapason. The French use the term as equivalent to pitch in music. **Diaper** (di'a-per), a kind of textile fabric much used for towels and napkins, and formed either of linen or cotton, or a mixture of the two, upon ite surface of which a flowered or fig-ured pattern is produced by a peculiar mode of twilling.—As a term in orna-mentation diaper is applied to a surface covered with a flowered pattern sculp-tured in low relief, or to a similar pattern in painting or gilding covering a panel or fat surface. **Diaphoretics** (dI-a-f o-r et' i k s) are

flat surface. **Diaphoretics** (d I-a-f o-r e t' i k s) are agents used in medical practice for producing a greater degree of perspiration than is natural, but less than in sweating. The Turkish bath and a large part of hydropathic treatment, dil-uent drinks, etc., are employed for this purpose. Diaphoretics increase only the insensible perspiration, while sudorifies excite the sensible discharge called sweat. Diophorety (df'a-fram), in anatomy,

excite the sensible discharge called sweat. **Diaphragm** (di'a-fram), in anatomy, a muscular membrane placed transversely in the trunk, and di-viding the chest from the abdominal cav-ity. In its natural situation the dia-phragm is convex on the upper side and concave on its lower, but when the lungs are filled with air it becomes almost flat. It is the principal agent in respiration, particularly in inspiration. A complete diaphragm is found only in Mammalia. **Diarbekir** (dé-är-bek'r), a town of the pashalic of same name, on a high bank overlooking the Tigris, and sur-r unded by a lofty, massive wall. It has manufactures of iron and copper ware, leather, silk, woolen and cotton goods, and a considerable trade. Pop. about 25,000.

cure, mild purgatives given in small doses and accompanied by quantities of mild diluents being frequently successful. Castor-oil, rhubarb and magnesia are the most generally applicable. The food should be of the least stimulating kind. **Diastase** (di'as-tūs), a substance ex-isting in barley, oats and potatoes, but only after germination. When in solution it possesses the prop-erty of causing fecula or starch to break up at the temperature of 150° Fahr. transforming it first into dextrine and then into sugar. It is obtained by di-gesting in a mixture of three parts of water and one of alcohol, at a temper-ature of 113° Fahr., a certain quantity of germinated barley ground and dried in the open air, and then putting the whole under pressure and filtering it. **Diastase** is solid, white and soluble in water and diluted alcohol, but insoluble in strong alcohol. **Diathermancy** (d I-a-t h er'man-si).

unuted alconol, but insoluble in strong alcohol. Diathermancy (d I-a-t h er'man-si), possessed in various degrees by different substances of transmitting radiant heat. Bodies that crocequally transparent, that is, bodies which have equal power of transmitting rays of light, are very dif-ferent in their power of transmitting heat rays. Thus a thin plate of glass and a thin plate of rock-sait may be nearly equally transparent, but the plate of rock-salt has far superior power of transmit-ting rays of heat. The latter, it has been found, allows 92 per cent. of the total heat from any source to pass; glass only 39 per cent. from a lamp flame, 24 per cent. from incandescent platinum, etc. Rock-salt is the oily body equally dia-thermanous to heat from all sources. The diathermancy of the plates in every case is increased. Diathesis (dI-ath'e-sis), in medicine, a certain source between the the set

Diathesis (dl-ath'e-sis), in medicine, a certain general habit or constitution of body as predisposing to certain diseases.

reather, sink, wonten and cotton goods, constitution of body as predisposing to and a considerable trade. Pop. about 25,000. Diarrhœa (dia-rê'a), a very common an increased discharge from the alimen-tary canal, the exacutions being but lit-and on moist plants and damp ground. The affected, except in their assuming a the affected, except in their assuming a the affected, except in their assuming a more liquid consistence. They are gener-ally preceded or accompanied by flatu-three portions, viz., two generally sym-bence and a gripping pain in the bowels, and frequently by siekness. Diarrhora is often produced by indigestible food, re-the species consist of single free cells, or often produced by indigestible food, re-the section of the show, impressions on fronds, or in some cases the cells or the nervous system. It is often also a frustules are enclosed in a transparent, symptom of some ther disense. In its gelatinous sheath or frond. The ordinary simple form diarthera is not difficult of method of increase is by cell divisiog

# Diatomite

Diatomacces are found fossil, forming considerable deposits of tertiary age, as at Bilin, Bohemia; Richmond, Virginia, etc. Fossil polishing powders, as tripoli and bergmehl, are composed of them. They are abundant in guano. **Diatomite** (di-atu-mit), a diatoma-ceous earth (see Diatom-ceous earth (see Diatom-ceous), generally found underlying peat in various districts of Scotland. In Syke, at Loch Quire, where large supplies of

in various districts of Scotland. In Syke, at Loch Quire, where large supplies of diatomite have recently been discovered, it is found about 18 inches below the surface, and extends downward for about 7 feet, and in some places to a much greater depth. Diatomite is principally used for the manufacture of dynamite, its value as an absorbent being fully double that of the ordinary German kieseignhr. It is described also as extremely well adapted for the manufacture of silicate and ultramarine paints, siliceous glasings, porcelain, boiler-coatings, isolating felt, etc. etc.

etc. Diatonic (dI-a-ton'ik), a term orig-inally applied by the Greeks to one of their three genera of music. In modern music it is applied to the natural scale, and to the intervals, chords, mel-odies, or harmony characteristic of it. A diatonic chord is a chord having no note chromatically altered. A diatonic inter-val is an interval formed by two notes of the diatonic scale unaltered by acciden-tals. A diatonic melody is a melody com-posed of notes belonging to one scale only. only.

Diaz (de'as), ABMANDO, commander-in-chief of the Italian armies, born at Naples in 1861. Following the disaster at Naples in 1861. Following the disaster on the Isonzo front in October, 1917, dur-ing the World War, he was placed in su-preme command of the Italian forces. He rehabilitated the army and began an of-fensive in October, 1918, which resulted in the surrender of the Austrians and the re-demption of 'Italia irredenta.' He visited the United States in 1921 and was en-thusiastically welcomed. Dia=- or Divs. BARTHOLOWEU a Portu-

Diaz, or Dias, BARTHOLOMEU, a Portu-In 1486 he sailed down the coast of Africa, In 1486 he sailed down the coast of Africa, and was the first to double the Cape of Good Hope, anchoring on the east coast. Diaz now wished to continue his voyage in order to discover the country of Pres-ter John, but the sailors refused to ac-company him. In again doubling the Cape he gave it the name of Cabo Tor-mentoso (Cape of Storms), which the king changed to its present designation. In 1500 Diaz had command of a vessel in the expedition of Cabral which dis-covered Brazil. In returning home the

vessel which he commanded was lost, May 29, 1500. Diaz, Posvinio, former President of ico, 1830. of Indian descent through his mother. He became a lawyer, took part in civil wars (1854-67), and in 1867 was defeated in a contest for the presi-dency. Exiled in 1871, he returned in 1876, headed a successful revolution, and was made provisional president, being 1870, headed a successful revolution, and was made provisional president, being regularly elected in the following year. Under the constitution he could serve only one term, but an amendment set aside this rule, and he was again elected in 1884, being regularly reflected until 1908. Under his rule Mexico prospered as never before, foreign capital was brought into the country, public works were built, and the resources of the state developed. But his home rule was stern and often oppressive, discontent spread widely, and in the autumn of 1910 a revo-lutionary movement broke out which ex-tended throughout the country and became successful in May, 1911. The resignation of Dias was demanded and the old ruler was forced to submit, leaving the country

successful in May, 1911. The resignation of Dias was demanded and the old ruler was forced to submit, leaving the country in voluntary exile, while the powers of government were selsed by the triumphart revolutionists. He died in 1915. **Dibdin**, (dib'din), CHARLES, an Eng-Dibdin, (dib'din), CHARLES, and Fad-poet, composer and actor, born in 1745; died in 1814. At the age of fifteen he made his appearance on the stage, and was early distinguished as a composer. He invented a new kind of entertain-ment, consisting of music, songs and pub-lic declamations, which he wrote, sung, composed and performed, himself, and by this means succeeded in amusing the public for twenty years. His patriotic songs were very popular, and his sea-songs, among which are Tom Bowling, Poor Jack and The Trim-built Wherry, are still favorites in the British navy.— His son, CHARLES DIBDIN, composed and wrote many small pieces and occasional songs.—Another son, THOMAS, early dis-played the same dramatic tastes as his father, was connected with various theaters, and wrote a great many songs and a number of dramas. father, was connected with various theaters, and wrote a great many songs and a number of dramas.

and a number of dramas. **Dibranchiata** (di-brank-i-a'ta), the pode or cuttle-fishes. See Cephalopods. **Dice** (dis), cubical pieces of bone or of their six faces, from one to six, ac-cording to the number of faces. They are shaken in a small box and then thrown on the table. Dice are often loaded or faisified in some way so as to

#### Dichlamydeous

make the high or the low sides turn down. Dice are very ancient, being well known among the Egyptians and Greeks

Dichlamydeous (dl-klam-id'i-us), in botany, said of plants that have both calyx and corolla. Dichobune (dl-ko-būn'), a genus of curring in the Eocene formations, pre-senting marked affinity to the ruminants, and coming between them and the Ano-plotherium.

and country between them and the And-plotherium. Dichotomy (di-kot'o-mi), a cutting pairs. Hence, in botany, a mode of branching by constant forking, each branch dividing into two others. Dichroic Crystals (di-krō'ik), crys-tals that have the property of exhibiting different colors when polarized light is passed through them in different directions. Thus dichro-ite, a mineral observed by Hatly, ap-pears deep blue in the direction of the principal axis, and yellow brown in a direction at right angles to it, even when viewed with ordinary light. Dichroite (di'kro-it), a mineral, a and aluminium, which readily undergoes

and aluminium, which readily undergoes modifications and passes into other min-erals. It exhibits different colors. (See preceding article.) Sometimes called lolite.

Dichroscope (dl'kro-sköp), an optical lolite. Dichroscope (dl'kro-sköp), an optical instrument, usually con-sisting of an achromatized double-image prism of Iceland spar, fixed in a brass tube, which has a small square hole at one end and a convex leas at the other, of such a power as to give a sharp image of the square hole. On looking through the instrument the square hole appears double, and if a dichroic crystal is placed in front of it the two images will ap-pear of different colors. See Dichroic. Dick, Thomas, a Scottish author of Dundee, in 1774. He was for many years a teacher at Perth, but afterwards resided at Broughty-Ferry, where he de-voted himself to astronomical science, es-pears before his death a small pension

became a newspaper reporter in London. Young Dickens received a somewhat scanty education, was for a time a mere drudge in a blacking warehouse, and subsequently a clerk in an attorney's office. Having perfected himself in shorthand, however, he became a news-paper critic and reporter, was engaged on the Mirror of Parliament and the True Sun, and in 1835 on the Morning Chronicle. For some time previously he had been contributing humorous pieces to the Monthly Magazine; but at length, in 1855, appeared in the Morning Chron-icle the first of that series of Skrtches by Boz which brought Dickens into fame. The Strange Gentleman, a farce, followed



#### Charles Dickens

or the square note. On looking through the instrument the square hole appears Charles Dickens double, and if a dichroic crystal is placed in 1836. In the same year Chapman and in front of it the two images will ap-pear of different colors. See Dichroic. Dick, popular scientific works, born at Dundee, in 1774. He was for many fame, and suggested as a subject by Sey-resided at Broughty-Ferry, where he de-vected himself to astronomical science, es-pecially in its relations to religion. Some years before his death a small pension was granted to him by the government, istics of Dickens' genius were now fully Among his works are The Christian (1838), etc. He died in 1857. Dickens (dik'ens), Cutates, one of Dickens the greatest English nov-representations to religin hov-representations of the humors and odd-clists, was born in 1812, at Landport, was y Pav Department, but subsequently public. Under the name of the Postke-Navy Pav Department, but subsequently public. Under the name of the Postke-

#### Dickens

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#### Dickinson

# **Dickinson College**

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# Didelphia

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Didelphys (dI-del'fis). See Oposeum.

chase. Didelphys (di-del'fis). See Oposusm. Diderot (déd-rö), DENIS, a French Didot (déd-d), a famous house of Didot (déd-d), a famous house of ponders at Faris. The founder was hor nin 1713, at Langres, in Champagne, Fanycois Dimor, born in 16850; died in 1757. Of his soms Franycois Ammaonse of Harcourt. His first works were the Fanycois (born in 1722; died in 1685), succeeded to pamphlet against the Christian religion, a pamphlet against the Christian religion, the *Lettre sur les Areugies à l'Usage de curs qui Voyent*, is in the same strain. These heterodox publications cost him an timprisonment for some time at Vin-founding art as an inventor of new pro-qually eminent by his bibliographical to the advancement of printing. Franze the stage, but his pleces were failures in 1740 he had begun along with D'Alem-printing the same of the franzity and the *Excelopardia* authors in follo, among which his Vigil At first it was intended to be mainly a translation of one already published in antificent down the mexelopardia author, project, and made the new *Encyclopardia* author, project, and made the new *Encyclopardia* author, project, and made the new *Encyclopardia* author in 1702; died in 1830), the a magnificenti down prehendive and bolis authors in follo, and an improver of the the time. Didorot, besides revising the out of all the thought and science of the time. Didorot, besides revising the othe amagnificent edid in 1830, the a magnificenti down of the solution author, preform in 1702; died in 1830, the a magnificent down of the meximum at a subsequently made contribu-tions in history, philosophy and art criti-rity, and subsequently made contribu-tions in history, philosophy and art criti-rity and subsequently made contribu-tions in history, philosophy and art criti-ciure. Ha synch bielefar the operations and an improver of the the time a synch bielefar the solution and the may aparify allowance of

contain a didactic element in the shape dien, suggestive essays on the principles of history or moral teaching. Dante's of painting and acting; two lively Divine Commedia, Militon's Paradise tales, Le Religieuse and Jacques le Last, or Goethe's Feust, for example. The Fateliste. difference may be said to be this, that in the one case the materials are limited the one case the materials are limited founder of Carthage. She was and controlled by nothing but the creative the daughter of a king of Tyre, and fancy of the poet, while in the other they after her father's death her brother are much more determined by the actual Pygmalion murdered her husband Si-nature of the subject treated of. Didelphia (di-del'fi-a), one of the with the view of obtaining his wealth. mammalia (the others being Monodel-of her party, fied with all the treasure phia and Ornithodelphia), comprising the over sea, and landing on the coast of order otherwise known as Marsupials, Africa, founded Carthage about 800 B.C. which form the only order in the sub-class.

dien, suggestive essays on the principles of painting and acting; two lively tales, Le Religiouse and Jecquee is Fisioliste. Dido (dl'do), or ELISSA, the reputed founder of Carthage. She was the daughter of a king of Tyre, and after her father's death her brother Pygmalion murdered her husband Si-charbas, or as Virgil calls him, Sicheus, with the view of obtaining his wealth. But Dido, accompanied by many Tyrians of her party, fied with all the treasure over sea, and landing on the coast of Africa, founded Carthage about 860 B.C. The story is told by Virgil with many inventions of his own in the Affect (books i and ii). Didot (dd-do), a famous house of printers, booksellers and type-founders at Paris. The founder was FRANÇOIS DIDOT, born in 1689; died in 1757. Of his sons FRANÇOIS AMBROISE (born in 1720; died in 1804) and PIEMER FRANÇOIS (born in 1732; died in 1:050), the first distinguished himself in the type-founding art as an inventor of new proc-esses and machines, the second was equally eminent by his bibliographical knowledge, and contributed much also to the advancement of printing. PIEMER (born in 1701; died in 1853), succeeded his father FRANÇOIS AMBROISE in the printing business. He made himself fa-mous by his magnificent editions of classic authors in folio, among which his Virgil (1718) and his Racine (1801) may be particularly mentioned. He did much also for the improvement of types, etc. He is known also as an author.— FIRMIN (born in 1764; died in 1836), the brother of Pierre, took charge of the type-founding, was the inventor of a new sort of script, and an improver of the stereotype process.—AMBBOISE FIRMIN (born in 1760; died in 1876) and HIYA-(INTIN FIRMIN (born in 1764; died in 1880) occupied a distinguished position among the publishers of Paris. The house has now extended its trade into everything connected with bookselling, papermaking, bookbinding, etc.

Didunculus

is turnished with two or three tooth-like Diedenhofen (dé'den-hō-vn). indentations. Didymi (did'ymi), an ancient temple Dieffenbach (dë'fen-båk), of Apollo in Asia Minor, on

indentations. Didymi (did'ymi), an ancient temple of Apollo in Asia Minor, on the seacoast of Ionia. It was one of the most celebrated oracles of the Greek world and was ministered to by the Milesian Branchidae, a priestly caste tracing their ancestry back to Branchus, a favorite of Apollo. The temple was destroyed by Nerves in 481 n.c. and the Branchidae were exiled to the far northeast of Persia. Rebuilding of the temple was commenced in 332 n.c., but it was never finished, though the work done on it was of the Greek temples.

Didymium (di-dim'i-um), a rare me-tallic element, occurring along with *lanthanium* in the mineral cerite as discovered by Mosander in 1843. Recently it is said to have been resolved into two new elements: *Prasco-dymium* and *Ncodymium*. Didynamia (di-di-nā'mi-a), the four-teenth class in the Lin-mean system of plants, the members of which have four stamens, of which two are longer than the other two. Die (di), a metallic stamp for impress-ing a design or figure upon coins or other metallic objects. See Diesink-ing.

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ing.
Die (dē), an ancient town of France, dep. Drôme, 26 miles southeast of Valence: with a former cathedral and Roman remains. Pop. (1906) 3680.
Dié (dê-à), ST, a town of France, dep. of Vosges, on the Meurthe, 25 miles E. N. E. of Epinal. Both iron and copper are worked; there are marble quarries; and a variety of manufactures are carried on. Pop. 16289.
Dichards C. Schollzmarki, II A N 8

oparries; and a variety of manufactures are carried on. Pop. 16,289. **Diebitsch-Sabalkanski**, II A N 8 a Russian general, born at Grossleippe in Silesia in 1785, was educated at the military school of Berlin, but in 1801 quitted the Prussian service for that of Russia. He was present at the battles of Austerlitz and Friedland, served with distinction in the campaign of 1812, took part in the battles of Dresden and Leipsig, and was made lieutenant-gen-eral at the age of twenty-eight. He had the chief command in the Turkish war of 1828-29, stormed Varna, and made the famous passage of the Balkans, for which the surname of Sabalkanski was conferred on him. In 1830 he com-manded the army sent against the re-volted Poles, but did net distinguish him-self in this service. He died in 1831.

See JOHANN

Dieffenbach (défen-bak). JOHANN FRIEDRICH, a German surgeon, horn at Königsberg in 1792. After having studied at Bonn and Paris he settled in Berlin, where his talent as an operator soon attracted notice. Sur-gery is particularly indebted to him for new methods of forming artificial noses, eyelids, lips, etc., and curing squinting, stammering, etc. He died in 1847. Dieffenbachia (déf-en-bak'i-a). See Dumb-cane. Dielectric (di-e-lek'trik), a name ap-medium through or across which elec-trostatic induction can take place. (See Induction, Electrostatic.) Faraday first showed that electrostatic induction was not action at a distance, but took place by means of the insulating medium sepa-rating the two conductors. The medium he named a diclectric, and measured its

by means of the insulating medium sepa-rating the two conductors. The medium sepa-rating the two conductors. The medium he named a diclocation, and measured its specific inductive capacity by taking that of common air as unity. **Dielytra** plants be long in g to the nat. order Fumariaceæ or Fumiteries. The best known is D. spectabilis, a na-tive of Northern China and Siberia, now common in European and other gardens. It blossoms in April and May, and its long drooping racemes of purplish-red blossoms present a very graceful appear-ance. It grows freely in the open air. It is sometimes called pendent heart or virgin's heart from the shape of the blos-soms. soms.

Diemen (dö'men), ANTONVAN, A Dutch administrator, was born in 1583. Having gone to India, he speedily rose to the highest dignitics, and was at length, in 1636, made govern-or-general. He administered the gov-ernment with much ability, and con-tributed much to the establishment of the Dutch commerce in India. Abel Tas-man, whom he sent with a vessel to the South Seas in 1642, gave the name of Van Diemen's Land, to the island new called Tasmania. Van Diemen died in 1645.

1645. **Dieppe** (dö-ep), a seaport town of France, department Seine-Inférieure, on the English Channel, at the embouchure of the Arqu.s. 93 miles N. N. Paris. Almost the only public edifices worth special notice are the two Gothic churches (St. Jacques, begun in the thirteenth century, and St. Rémi, founded in 1522), and the old castle (1453), now a barrack. To the west of Dieppe proper is the suburb La Barre: and on the opposite side of the harbor

# Diesel Engine

La Poilet, which is inhabited chiefly by sailors and fishermen. Dieppe is one of the chief watering places of France, and is much frequented by visitors. The manufactures include works in ivory, work in horn and hone, lacemaking, sugar-refining, shipbuilding, etc. In early times Dieppe was the chief port of France, but its prosperity diminished after the revo-cation of the Edict of Nantes (1865). Pop. 22,120. cation of th Pop. 22,120.

Pop. 22,120. Diesel Engine, an oil engine in-Diesel in 1893. The engine operates at compression pressures very much higher than those used in any other internal-combustion engines, and it dispenses with the usual igniting devices by rendering the air charge incandescent by compres-sion. The efficiency of the Diesel engine is high, and it can use low grades of fuel, but it has the disadvantage of greater weight per horse-power than other engines. It has found increasing favor for use in marine propulsion, and in 1918 was adapted to high-speed railway serv-ice, and put into use in Germany.

day of wrath '), the final judgment of the world.

Dieskan (des'kou), LUDWIG AUGUST (1701-67), a German soldier who entered the French army and was sent to Canada in 1755 to conduct the campaign against the English. With 200 regulars and 1200 Indians and Canadians he moved up Lake Champlain to attack Fort Edward (q. v.), defended by Sir William Johnson (q. v.). English artil-lery forced him to withdraw, and the re-treat became a rout, in which he himself was captured. He was liberated, 1763, and returned to Paris. Diet (df'et), a meeting of some body other purposes; a term especially ap-plied to the legislative or administrative assemblies of the German Empire, Aus-tria, etc. Dietetics (df-etet'iks), that part of

the air charge incandescent by compression. The efficiency of the Diesel engine sion. The efficiency of the Diesel engine is high, and it can use low grades of fuel, but it has the disadvantage of fuel, but it has the disadvantage of fuel, but it has the disadvantage of reactive wight per horse-power than other or use in marine propulsion, and in 1913 was adapted to high-speed railway serv-ice, and put into use in Germany. Dies Fasti et Nefasti (d'f's), vision of days, with reference to judicial business, into working days and holiday. Die-sinking, is the art of preparing buttons, medallions, jeweiry, fittings, etc. The steel for the manufacture of dies is carefully selected, forged at a bigh heat into the rough die, softened by care-fu annealing, and then handed over to the engraver. After the engraver has worked out the design in intaglio the is put through the operation of hard-polished, it is called a *matrix*. This is multiplying impressions, but is used for making a *punck* or steel impression for relief. For this purpose another block is compressed by proper machinery upon field. Mult and ostmeal taken togrents in the intogen is astisfactorily sup-for instance, but is deficient in introgen is astisfactorily sup-red in ance are the impression for relief. For this purpose another block is compressed by proper machinery upon the matrix. Any number of dies may from this process is complete allow and nitrogen is astisfactorily sup-rest due thande and collared like heating a munck of steel impression for relief. For this purpose another block is compressed by proper machinery upon the matrix. Any number of dies may from the super superiors. A certain proportion of carbon and nitrogen is astisfactorily sup-rest of the food most suitable for a so that by uniting 2 has of based time taken togenet allow matter is also necessary. The ma-ture of the food most suitable for ason, and in part upon special condi-tions of individual habit. The inhab-tions of individual habit. The inhab-tions of olestions in

Dietetics

nitrogenous foods becomes necessary. In a state of health we need not draw hair-breadth distinctions as to the superior salubrity of the several sorts of diet, the quantity rather than the quality of food being the main consideration. Those persons who have been most remarkable for health and life have generally been contented with two moderate meals a day, which are certainly quite sufficient during a state of health. In various countries the breakfast generally consists of tea, coffee, or cocoa, with a certain Constructed with are certainly quite means a const of France, department of Vender, direction of the verse sufficient during a state of health. In various const of France, department of Vender, for an of the verse sufficient during a state of health. In various the state of health. In various the constant general energy of the state in an exceedence of the verse state and the department of Vender, the verse state and the department of Vender department of Vender, the verse state and the department of Vender department

Raphael and Mieris, Correggio and Os-tade. He died in 1774. Dietrich of Bern, the name under the Great, king of the Ostrogoths, ap-pears in the old German legends. Bern stands for Verona, his capital. Dieu, or D'It (dyes; ancient Insula Oci), an island off the west coast of France, department of Vendée. It is inaccessible on the west side, but on the east has a tolerable harbor de-fended by batteries. The chief industry is fishing. There are four lighthouse on the island. Pop. about 3000. Dieu et Mon Droit (dyes e mon drwä; 'God and my right'), the motto of the arms of England, first assumed by Richard I. and revived by Edward III when he claimed the crown of France. Except during the reigns of Elizabeth and Anne, who used the motto Namper eadem, and of William III, who personally used Je maintiendray, it has ever since been the royal motto of England. Diez (Jets), FRIEDRICH CHRISTIAN, a

### Diffusion

<text> Diffusion these fringes are produced by diffraction. Bee Interference. Diffusion (diffrahun), the gradual dispersion of particles of one liquid or gas among those of another. Thus, in the case of gass, when a jar of oxygen and a jar of hydrogen are con-metted together by a tube or opening of any kind, they rapidly become mixed; and their mixture does not depend on gravity, but takes place in opposition to that force, as may be shown by placing the jar of hydrogen gas above the other. Oxygen, so the process of intermixture, or diffusion, goes on until the two gases are apparently equally distributed through-out the whole space After that they have no tendency whatever to separate. Similarly, if two vessels, one containing oxygen and the other through with a plug of porous material, such as plaster of Paris, the gases gradually diffuse one into the other through the provide pare roots of the densities of the gase. Thus in the cases of two vessels, one containing hydrogen and the other oxygen, which is sixteen times as heavy as hydrogen, the hydrogen will pass towards the oxygen jar four times as plug of porous material, such as plug of parous gases of two vessels, one containing hydrogen and the other oxygen, which is sixteen times as heavy as hydrogen, the hydrogen will pass towards the oxygen jar four times as provide the oxygen jar four times as hydrogen jar. Kindred phenomena occur when two liquids that are crapable of mixing, such as alcohol and water, are put in contact, the two gradually dif-tusing one into the other in spite of the action of gravity. In some cases, however, as where ether and water are employed, the diffusion is only partial, extending a comparatively small distance on either should be original line of separation. When solutions of various solid bodies

#### Digestion

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# Dilapidation

Diminutive

Dilapidation (di-lap-i-dă'sbun), in an incumbent of a church living suffers the parsonage house or outhouses to fall down, or be in decay for want of neces-sary repairs; or it is the pulling down or destroying any of the houses or build-ings belonging to a spiritual living, or destroying of the woods, trees, etc., ap-pertaining to the same. An outgoing incumbent (or his heirs) is liable for dilapidation to his successor. Dilemma (di-lem'a; from Gr. dis, twice, and lemma, an as-sumption), in logic, an argument in which the same conclusion may be drawn from two contrary propositions. We ap-pend one of the most famous of the classical dilemmas. A young rhetorician said to an old Sophist: 'Instruct me in pleading and I shall pay you when I gain a cause.' The master sued for the reward, and the scholar eluded the claim by a dilemma. 'If I gain my cause I shall not pay you, because the award of the judge will be against you. If I lose it I may withhold it, as I shall not have gained a cause.' The master replied: 'If you gain you must pay me, because you promised to pay me when you gained a cause; if you lose you must pay me, because the judge will award it.' The two results which are found equally ob-jectionable are called the 'horns' of the dilemma. Dilettante (di-let-tan'tā), an Italian dilemma.

Dilettante (di-let-tan'ta), an Italian

pungent, and aromatic, and are em-ployed medicinally as a carminative. In appearance it resembles the fennel. Dill-seeds yield dill-water and an essential oil, when distilled with water. Dill-water is used as a remedy in flatulency and gripes of children. Dilleniacese (dil-eni-à'se-d), an or-der of plants, chiefly fine trees, inhabiting the East Indies, allied to Ranunculacese and Magnoliacese. Dillingen (dil'ing-en), an old town of Bavaria, on the Danube. 24 miles northwest of Augsburg. It was long the seat of a Jesuit univer-sity, and the castle was formerly the ordinary residence of the Bishop of Augsburg. Pop. (1905) 6078. Dillon (dil'un), JOHN, politician, was born of Irish parentage in New York in 1851, educated at the Catholic University of Dubin, and carly identified himself with the Parnellite movement for reform in Irish affairs. He was elected to Parliament for County Thyperary in 1880 and soon became prominent ther-for the violence of this language. In Iri-land his speeches were so ultra-radical that they led to his imprisonment three-times between 1881 and 1888. He be-came one of the most prominent promoters of the 'Plan of Campaign' in Irish agitation, and in 1880 succeeded Justin McCarthy as chairman of the main section of the Irish Nationalist party. Dilman (dèl-min'), a town of Persia. province of Azerbijan, 75 miles west of Tabrees. Pop. estimated at 15,000. Dilolo (dè-lô'lo), a small lake in

main section of the Irish Nationalist party.
Dilettante (di-let-tân'tâ), an Italian control of the are intervention of the are moderately warraine.
main section of the Irish Nationalist party.
main section of the Irish Nationalist party.
main section of the Irish Nationalist party.
Dilettante (di-let-tân'tâ), an Italian control of the Irish Nationalist party.
main section of the Irish Nationalist party.
Dilettante (di-let-tân'tâ), an tealing and sciences, who devotes his leisure to them as a means of ancient.
a number of gentlemen founded in London the Dilettanti Society which published a splendid work on Ionian Antiquities, 1769-1840; Specimens of Ancient Sculpture, Egyptian, Etruscan, Gireck and Roman, 1800, 1855; the Temples of Agina and Bassa, 1860, etc.
Dilke (dilk), Six Citaktes W., an atter to increase the proportion of fluid and author, horn at the load and in 1882 and in the blood. They consist of water and watery liquors.
Dille (dilb, an unbelliferous plant, Inchlum graredlens, a native of the southern countries of Europe, the so

#### Dimity

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# Dinosauria

Dinotherium (di-no-the'ri-um; Gr. deinos, terrible; the-rion, beast), a genus of extinct gigantic mamala, the r e m ains of

which occur in Tertiary formations in several parta of Europe. of Europe. The largest



Dinotherium restored.
Dinotherium restored.
The largest
Dinotherium restored.
The scalculated for a translation of the gigs externs in the largest is calculated to have at the anterior extremity of the lower jaw, and curved downwards somewhat after the manner of those in the upper jaw of the diver jaw.
Diodon (df'o-don). See Globe-fish.
Diodorus (df-o-do'rus) or AB3TEJ M. and therefore the manner of those in the upper jaw of the diver jaw.
and curved downwards somewhat after the walrus. The zoological position of the diver jaw.
allied to the elephant. The skull, molar teth and scapular b.ne are the only portions yet discovered. Kaup regards it on your of the great rivers.
Diocese (df'o-ses; Greek, dioikčsia, administration), the circuit of a bishop's jurisdiction.
Diocletian furthers.
Di

body seems to have been even more conquered the Allemanni, and was gen-bulky in proportion, the tarsus being erally beloved for the goodness of his dis-shorter and stouter in order to sustain position, but was compelled by the its weight. They do not appear to have dangers threatening Rome to share the become extinct until the seventeenth or government with M. Aurelius Valerius eighteenth century, and are spoken of Maximian. In 292 C. Galerius and as mose by the natives, who buried the Constantius Chlorus were also raised to eggs with their dead as provision for their journey to the other world. Dinosauria (di-no-sg'ri-s; Gr. deisos, Diocletian administered Thrace, Egypt, sembling the pachydermatous mammals in general appearance, but in reality which the barbarians were driven back intermediate between the struthious birds from all the frontiers, and Ruman and lisards. The majority, as the in length, were carnivorous; the Iguano-don, however, was herbivorous. They were the land reptiles of the Jurassic, tinents. Dinotherium (di-no-thê'ri-um; Gr. deisos, terrible; the rion, beast), a genus of extinct gizantic mannals the content of the struction in the latter part of his reign he was in the latter part of his cign here as the there and the first of the series and the mannals. The majority as the Jurassic, the deisos, terrible; the rion, beast), a genus of extinct gizantic mannals.

Christians. **Diodati** (de-o-dâ'tê), GIOVANNI, an Italian Protestant divine, born at Lucca, about 1576, of a noble Catholic family. He was for some time professor, first of Hebrew, then of theology, at Geneva, and in 1619 rep-resented the Genevan clergy at the Synod of Dort, and aided in drawing up the Belgic confession of faith. He is most celebrated for a translation of the Bible into Italian, which is superior to his translation of it into French. He died at Geneva in 1049. **Diodon** (d'odon) See Globe feb

Diogenes

# **Diogenes Laërtius**

Diogenes Laërtius, author of a sort of history Diogenes Laërtius, author of a sort of history of philosophy in Greek, appears to have heen born at Laerte, in Cilicia, and to have lived towards the close of the sec-ond century after Christ; but no certain information exists either as to his life, studies, or age. The work is divided into ten books, and bears in MSS. the title, On the Lives, Doctrines and Apothegms of those who have distin-guided themselves in Philosophy. It is full of absurd and improbable anecdotes, but contains valuable information re-garding the private life of the Greeks, and many fragments of works now lost. It was the foundation of the earlier medern histories of philosophy.

Diogenes Laertuss
about 412 n.c. Having been banished the Bistônes, who fed his horses on from his native place with bis father, human flesh, and used to throw all who had been accused of coining false money, he went to Athens, and thrust himself upon Antisthenes as a disciple, tilled by Hercules, who carried of topplical speculations, and opposed the the borses. (2) One of the heroes at the stern austerity of Antisthenes was repulsive, Plogenes exposed the follies of his contemporaries with wit and good humor. As an excemplar of Cynic virtue the protection of Palas rendered him set then barefoot, without any coat, with a long beard, a stick in his hand, and a were assalled Apollo; and by carrying of the popular story, slept in a fulficent accounts vere given of his aboulders, and by night, forter and size earthenware vessel). On a vogage to the island of Ægina he fell in ot the lands of pirates, who sold the duties of the was one of the larces of his of pirates, who sold were the account of pirates, who sold at any stories related of him with the education of his associes related of him with the education of his associes related of him with the education of his associes related of him with the education of the most of the stores concrealed in a 323 B.c., at a great age. Of the rank of a line art.
Diogenes Laërting, author of a point at the relate and of elevating impertinence the rank of a line art.
Diogenes Laërting, suthor of pointes, but there is no ground for suposing him guity of any worse faiter.

Dionsea (di-on-d'a), a genus of plants, one species is known, D. suscipile (Venus' fly-trap), a native of the sandy suvannas of Carolina and Florida. It has a rosette of root leaves, from which rise a naked scape bearing a corymb of fairly large, white flowers. The leaves have a dilated petiole and a slightly stalked 2-lobed lamina, with three short. stiff bristles on each lobe. The bristles are remarkably irritable, and when touched by a fly or other insect the lobs of the leaf suddenly close on and capture the insect. It is said to digest the food thus captured by means of a fluid which dissolves it exactly like ordinary gastri-juice.

and many fragments of works in the earlier dissolves it exactly including the various process of albatross (which see). Diomede Islands (di'o-me'd'), a genus of birds, including the various species of albatross (which see). Diomede Islands (di'o-me'd'), a fin Bithynia. After accompanying bir future to Cilicia, of which he held the administration, he came to Rome about usy between Asia and America. Diomedes (di-o-me'd'z), in Greek senator. On the accession of Pertinas Diomedes (di-o-me'd'z), in Greek senator. On the accession of Pertinas Diomedes (di-o-me'd'z), in Greek senator. On the accession of Pertinas Diomedes (di-o-me'd'z), in Greek senator.

# **Dion Chrysostom**

reign of Caracalla he was one of the senators whom it had become customary to select to accompany the emperor in his expeditions, of which he complains bitterly. In 219 he was raised to the consulship, and about 224 became pre-consul of Africa. In 229 he was again appointed consul; but feeling his life precarious under Alexander Severus, he obtained permission to retire to his native town of Niczea. The period of his death is unknown. The most im-portant of his writings, though only a small part is extant, is a *History of Rome*, written in Greek and divided into eighty books, from the arrival of Abneas in Italy and the foundation of Alba and Rome to A.D. 229. **Dion Chrysostom** (kris'ostom), a

Dion Chrysostom (kris'os-tom), Greek sor and rhetorician and a favorite of Trajan; born in A.D. 50; died about A.D. 110. Eighty of his orations (in excellent At-tic) have been preserved. Djonysia (di-o-nish'i-a). See Bacchan-alia.

Dionysia (di-o-nish'i-a). See Bacchan-alia. Dionysins (di-o-nish'i-us), ST., a dis-arch of Alexandria in 248 A.D. He was driven from the city in 250, and in 257 was banished to Libya, but was restored in 200. Died in 205 A.D. Dionysius, of HALICARNASSUS, in Caria, a Greek critic and teacher of eloquence, born about 70 B.C. He went to Rome about 30 B.C., where he wrote his Roman Antiquities, in twenty books, in which he relates (in Greek) the early history of Rome and eleventh mearly so, and some fragments of the others. His rhetorical writings are of greater value, especially his es-says on the Greek orators. He died about 6 B.C.

century; and France gained a patron saint who was a martyr and the imme-diate disciple of an apostle. **Dionysius**, THE ELDER, in Greek his tory, tyrant or absolute ruler of Syracuse, born about 430 B.C. of obscure parentage. He obtained the rank of general, and afterwards of com-mander-in-chief; and gaining the support of the army, he seized the supreme power in Syracuse, though only twenty-live years of age. He extended his rule over other cities in Sicily; and after some succeases and reverses in the strug-gle with the Carthaginians he gained a complete victory over them under the walls of Syracuse. In his expeditions into Lower Italy he reduced the city of Rhegium by famine (387). After an-other short war with Carthage he lived some time in peace, occupied with writ-ing poems, tragedies, etc., with which he contuned for the Olympian prize. In 308 he commenced a new war against the Carthaginians, but failed to drive them entirely out of Sicily. He is said to have died from a potion administered at the instigation of his son Dionysius the Younger (307 B.C.). **Dionysius**, THE LITTLE (so called on

Dionysins (di-o-nishe-us), ST., a disher died from a potion administered at arch of Alexandria in 248 A.D. He instigation of his son Dionysius the Stored in 200. Died in 205 A.D. Dionysius, Caria, a Greek critic and of a monastery at Rome in the beginning of the sixth century, and died about the very, a Scythian monk who was abbot of the worte his Roman Antiquifie, in this mode of computation, however, was britis pokes, in which he relates (in first Punic war. We have the first nine work of this work entire, the tenth and first Punic war. We have the first nine of the others. His rhetorical writings are of greater value, especially his estays on the Greek orators. He died to have a subclous of the punpose of recalling him set of stracture, which as a covert to him consist of obscurely withen treatises on mytical subjects to him consist of obscurely where he sufficient rendered to Rome and the first Charling writhen treatises on mytical subjects to him consist of obscurely where he first the rendered to Rome and the first Charling writhen treatises on mytical subjects to him consist of obscurely where he is subjects to him consist of obscurely writher inquiry taken for the Areopagine without the distingt on the carely and the first Charling where he subjects to him consist of obscurely writher inquiry taken for the Areopagine without the distingt on the carely and the first Charling without the first Charling where he subjects to him consist of obscurely in Marken the subjects to him consist of the first century, the first charling without the first Charling where he is subjects to him consist of obscurely him more cruel, and Timoleon, who came to spain the charling here here a certain writing to the Areopagine without the first century, the first century and the first century and the first century, the proven a certain writing to the first century and the computeres the origin of the Gallean Charlen th

#### Dionysus

28-3

the Romans, being at first a more epithet or surname. See Bacchus. **Diophantus** (di-o-fau'tus) OF ALEX-ANDRIA, the first Greek writer on algebra, flourished, according to some authorities, about the middle of the fourth century after Christ. He left behind him thirteen books of Arith-metical Questions, of which only six are extant; and a work on Polygon Num-bers.

the Romans, being at first a mere epithet representative. The tortoise plant or surname. See Bacchus, elephant's foot occurs in South Afr Dionhantus (di-o-fan'tus) of ALEX- See Yam. Africa.

Dioscorides, l'EDANIUS (dl-os-kor'i-dez, pe-da'ni-us), born in Cilicia in the first century of the Chris-tian era, a Greek physician, author of a celebrated work on *Materia Medica*, in five books, particularly valuable in regard to botnay. to botany.

to botany. Dioscuri (dI-os-ků'ri). See Castor and Polluz. Diospyros (dI-os'pi-ros), a large genus of trees or shrubs, natives of the warmer regions of the world, nat. order Ebenaces. The trees of this genus supply ebony wood. That from India, of D. mclunozylon and D. Ebenaster; and that from Mauritius of D. reticuldia. The D. Lotos is the Indian date-plum. It is by some supposed to have been the lotus tree of the ancients, whose fruit was said to produce oblivion. Dip of the horizon. an sllowance made

 metical Questions, of which only six free books, particularly valuable in regard are extant; and a work on Polygon Numbers.
 Diopside (di-op-skl), a rare mineral, a variety or subspecies of a virtue subspecies of the vare furnished withe.
 Diopsis (di-op-skl), a genus of diports (di-op-kl), a variety or subspecies of the warmer regions of the world, nat.
 Diopsis (di-op-skl), are remark of the warmer regions of the world, nat.
 Dioptase (di-op-tas), emende coper, a virtue subspecies of the ancients, whose fruit was and the in six-sided prisms.
 Dioptase (di-op-tas), emende coper, a virtue subspecies of the ancients, whose fruit was and the in six-sided prisms.
 Dioptase (di-op-tas), emende coper, a virtue of the based of the sec.
 Dioptase (di-op-tas), emende coper, a virtue subspecies of the sec.
 Dioptase (di-op-tas), emende coper, a virtue subspecies of the sec.
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 Dioptase (di-op-tas), emende coper, a virtue subspecies of the sec.
 Dioptase (di-op-tas), a mede of painting and of secure station or angle virtue subspecies of the sec.
 Dioptase (di-op-tas), a mede of painting and of secure station or angle virtue subspecies of the sec.
 Dioptase of coper of illuston that on virtue subspecies of the sec.
 Dioptase of the head of tasspecies with the horison. The subspecies of the sec.
 Dioptas Bouton, and first exhibited in 1823. It is called the strike, and is always at right secures a higher degree of illusion than the ordinary panorama, by a mode of uniting transparent painting to the usual opaque method, and causing the light to fall upon the picture both from before and behind. At the same time, by means of colored transparent blinds, suspended both above and behind the picture, the rays of light can be intercepted and made to fall at pleasure in graduated tints upon every part of the picture in succession.
Diorite (di'o-rit), a tough trap-rock, sometimes very dark in color, consisting of hourd-leude and feldspar.
Dioscoreaceæ (diosekor-ea'se-e)'se-e), a mat, order of endogenomy is the only British is produced by the infecting back with about 100 species. The towers are small and unisevual. There are six genera, genus is *Dioscorea*, which includes the yam. Black bryony is the only British



# Diphthong

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# Dipnoi

### Dipsomania

# Dippel

hibiting the transition between fishes and the amphibia. Formerly Lepidosiren ress by grasping the stones with its was reckoned the lowest of the amphibia, now it constitutes the highest order of fishes. The body is fish-like in shape, covered with small, honry scales of a cycloid character; the pectoral and ventral fins are represented by two pairs of long, filform organs; the heart has two auricles and one ventricle, and the respiratory organs are twofold. consisting of ordinary gills opening externally, and of true lungs formed by the modified swimming-bladder—communicating with the osophagus by means of an air duct or trachea, whence the name. They are also called *Protopteri*. The combination of respiratory organs is similar to that which is presented by the tailed amphibians with persistent gills (perennibranchiate), as the axolotl. This interesting group is alled to the ganoids through the ('eratolus of Queensland. The L, paradoxa is found in the Amazon; L, an meters in the Gambia.

Dippel (dip'el), JOHANN CONRAD, a mecteus in the Gambia. Dippel (dip'el), JOHANN CONRAD, a German theologian and al-chemist, born in 1672. He studied theol-ogy, defended the orthodox party against the Pietists, led a turbulent life at Stras-burg, and then joined the Pietists until an unfortunte tractate placed him in disfavor with both parties. He then turned his attention to alchemy, and dur-ing a residence at Berlin produced the oil called after him (see next article), from which indirectly followed the dis-covery of Prussian or Berlin blue. After various adventures and wanderings in Sweden, Denmark and Germany he died in 1734. in 1734.

Dippel's Oil, the rectified form of taining ammoniac carbonate, which can be obtained by the destructive distillabe obtained by the destructive distilla-tion of animal matter, such as stag's-horn, ivory, or blood. The cruder form was used in medicine, despite its appearance and odor, until Dippel refined it. His oil was formerly prescribed as an anti-spasmodic and diaphoretic, but is no longer used in medicine. **Dipper** (dip'er), a bird of the genus The common dipper, water-ouzel, or wa-ter-grow (Cinclus, aquaticus), is a famil-

be obtained by the destructive distilla-tion of animal matter, such as stag's-horn, ivory, or blood. The cruder form was used in medicine, despite its appearance and odor, until Dippel refined it. His spasmodic and diaphoretic, but is no longer used in medicine. Dipper (dip'er), a bird of the genus Dipper (dip'er), a bird of the genus. The common dipper, water-ouzel, or wa-ter-crow (*Cinclus aquaticus*), is a famil-denote an insane craving for intozicat-iar European bird; it is about 7 inches ing liquors, when occurring in a con-tin length, with a very short tail, small the bill is of moderate length, straight and labeder. The male has the upper or from disease. The only result from the bill is of moderate length, straight and breast white, bely rusty. The dip-strated breast white, bely rusty. It can dive in Britain and the United States.



and the *L*. an-bazon; *L*. an-bazon; *L*. an-CONRAD, a of the components of the carth's magnet-tion and al-ism. In essentials the instrument consists studied theol-of a light magnetized steel bar supported arry against inearly as possible, through the center of Pietists until inertia of the bar. When a needle thus ceed him in mounted is placed anywhere not in the a. He then magnetic equator, it dips or points down-my, and dur-wards; and if the vertical plane, in which produced the it moves, coincides with the magnetic elect article), meridian the position of the needle shows well the dis-at once the direction of the magnetic blue. After force. The intersection of two or more inderings in directions found by making the experi-nany he died el form of , which can tive distilla-stag's-horn,

#### Diptera

Diptera (dip'to-ra), an order of two Directors, as in many companies there is winged insects, of which the a body called Estimordinary Directors, common house-fly and the blue-bottle are who have little or no business functions. familiar examples. They are character-and are chosen, as a rule, on account of their social position imparting a degree coverings, a trunk open beneath, and containing a sucker composed of two, four, or six lancet-shaped elongated scales, two palpi, antenne almost always composed of three joints, large eyes, an abdomen of from four to seven distinct segments, tarsi with five joints, and two short clubbed appendages called Asittree or balancers, which seem to be the rudi-ments of the posterior pair in four-winged insects, and are kept in continual motion. All undergo complete meta-morphosis, and all are oviparous except the Sarcophaga, which issue from their mother in shape of larve; and the Pu-pipara, which first make their appear-ance as nymphs. The greater number or various secretions. Dipteracee (dip-ter-a'se-4), Dirren-or various secretions. Directory (di-rek'to-ri), the name or various secretions. Directory (di-rek'to-ri), the two legislative bodies, called the consultied in blacers, which seem to obte freed on bload, others fasten on other animals one member was obliged to retire yearly, and his place was supplied by election. This body was invested with the author-trees, allied to the mallows (Malvacew). The different species produce a number of resinous, oily, and other substances; on e, a sort of camphor; another, a fra-

or various secretions. Dipteraceæ (dip-ter-à'se-à'), DIPTED-OCARPE.E, an important order of Asiatic exogenous, polypetalous trees, allied to the mallows (Malvacee'). The different species produce a number of resinous, oily, and other substances; one, a sort of camphor; another, a fra-grant resin used in temples; and others, varnishes; while some of the commonest produce pitches, and sal, valuable tim-ber. Dipteral (dip'tik: ())

The different species produce a number of resinous, oily, and other substances; one, a sort of camphor; another, a fragrant resin used in temples; and others, varishes; while some of the commonest produce pitches, and sal, valuable time. Diptych (dip'tik; Greek) originally different being written the names of popes, and to three distinguished persons who had deserved well of the church, in them being written the names of popes, and to advise and line. Its name indicates the formet to the axis of a conic section, and so point form the focus in the church prize. Diptyce (dip'tic), a mineral consisting with small proportions of the silicate of a unina, with small proportions of the silicate of a constant ratio: also, the name given to any point in the curve is to the distance of the same from it (Gr. di, double effect of fire upon it (Gr. di, double, pyr, fire) in producing first phosphorscence and thea fusion. Directors (di-rek'turs), persons elect ed to the direct or the distance of the vertex is equal to the distance of the vertex is equal to the distance of the vertex is constant ratio: also, the name given to any point in the curve is to the distance of the same form the focus in a constant ratio: also, the name given to any point in the vertex is equal to the distance of the vertex is equal to the distance of the vertex is equal to the distance of the vertex is of the parabola. Directors (di-rek'turs), persons electer at the directiris of a consult about the affairs of corporations or joint-stock companies, and to advise and assist the manager. These are termed Ordinary

by the consulate.



Dirk

by the Highlanders of Scotland. Dirks by the frigmanders of Schuld. Dirks are worn by midshipmen and cadets of the royal navy, and still form part of the full Highland costume. **Dirk-hartog Island**, on the west coast of Aus-

tralia, 45 miles long north to south, and 0 miles broad.

O miles broad. Dirt-beds, in geology, layers of an-the oölitic strata of the Isle of Purbeck (Dorset), which contain the stumps of trees that once grew in them. Disability (dis-a-bil'i-ti), in law, in-disables the person; such as outlawry or excommunication—or partial, such as infancy, coverture, insauity, or drunken-ness. ness.

ness. Disbanding (d 1 s-b a n d' ing), the breaking up of a regi-ment, or other body of military, and re-leasing them from service, when they are no longer required, or it may be on ac-count of insubordination. Disbarring (dis-bar' ing), expelling a prerogative which, in England, is pos-sessed by the benchers of each of the four Inns of Court. The party dis-barred may lodge an appeal with the judges in their capacity of visitors. Disc Dist, the central part of a

Disc, Disk, the central part of radiate compound flower su a surrounded by the ray. Also a part, some-times cup-shaped, at the base of the stamens, consisting in some cases of the stamens, consisting in some cases of rudimentary stamens, in others of the modified receptacle.—In astronomy the term is applied to the face or circular figure exhibited by the sun, moon, or a planet in the sky.

Discharge. See Calico-printing.

(dis-charj'ing), an arch formed **Discharging Arch** in the substance of

in the substance of a wall to relieve the part which is below it from the superin-curabut weight. Such a relies are controlly used over bintels and flat-banded operurgs. **D is c i ples of** 12 1

Christ, ar Churs-

Discharging Arch. CAMPRETITIES, as a Discharging Arch. CAMPRETITIES, as a Discharging Arch. Automatic relations organization, had its reginning in 1800. See Alexander Camp-

bell. The church numbers over two and a quarter million members.

bell. The church numbers over two and a quarter million members. Disclaimer (dis-k lā m'er). in 'ta stricter legal sense, a plea containi ~ renunciation or a denia-of some claim alleged to have been made by the party pleading. Disco (dis'kō), an island off the w. coast of Greenland, 70 mles long, averaging 50 miles wide, lat. alout 70° N. It has large coal deposits. Discophora (dis-kot'e-ra), a subclass of the Hydrozoa, com-prising most of the organisms known as sea-jellies, jelly-fishes, sea-nettles, etc. Discord (dis'kord), in music, a dis-sonant or inharmonious com-bination of sounds, so called in opposi-tion to the concord. See Dissonance. Discount (dis-kount), the clarge made-money advanced by him on a bill or other document not presently due. In advanc-ing money on such security the banker docuts the charge for interest of money advanced by him on a bill or other docute the total amount represente-on the security, pays the difference, which is called the proceeds of the bill, to the person parting with it, and collects the full amount to reimburse himself for outlay and interest at maturity. Popularly, the term discount is applied to any deduction from the full amount of an account made by the party to whom it is paid, especially on prompt or early payment. When a bill which has been aiscounted is paid by the acceptor before it is due, the discount allowed for re-payment is called rebate. Discrase (dis'kns), an ore of silver. consisting of antimory and slaso used in reference to the disclosure by a bankrupt of his property. Discrase (dis'kns), an ore of silver. consisting of antimory and silver. It occurs in heragonal prisms Discus (dis'kus), D18 C, or D18 K, among the Greeks and Romans a quoit of stone or metal, conver on beth middle. Disease (diz-cz'), any morbid state of the body, or of any organ or part of the body. Discease are described

middle. Disease (diz-ëz'), any morbid state of the body, or of any organ or part of the body. Diseases are described as local or constitutional, idiopathic, symptomatic, epidemic, endemic, conta-rious, acute, chronic, etc. As to their classification, see Nosology. The influ-ence of the parents on the organization of the child is so great that not only pe-culiarities of external form, but the peculiar constitution, the greater or less



# **Diseases of Plants**

activity and development of the organs, are found to pass from parent to child. As it is in the particular state of the several organs and functions that a very great part of diseases have their foundation, the liability to certain dis-eases may be inherited with the organic structure, and the son attacked by vari-ous complaints at the same period of life in which his father was. The most im-portant hereditary defect is physical weakness. These diseases are called *Aerod-itary*; but it is only the predisposition to them that is inherited. Hence the actual development of hereditary diseases requires certain coöperating circum-stances. Constitutional diseases often depend on circumstances which affect the fortus during pregnancy. Among the disdepend on circumstances which affect the fortus during pregnancy. Among the dis-eases, the predisposition to which is most frequently hereditary are scrofula, haemophilia (especially bleeding at the lungs), and hemorrhoids, consumption, gout, gravel and stone, cancer, disorders of the mind, hysterical and hypochondriac affections, apoplexy, epilepsy and organic diseases of particular parts, especially of the heart. Inherited diseases are much more difficult to cure than those which originate in accidental external causes, and special care should therefore be tak-en to adopt an environment and mode of life calculated to counteract the inherited predisposition. As to the origin of cer-tain diseases see Germ Theory. **Diseases of Plants**, may be divided into two main classes: those produced by temperature,

Discases of Plants, may be divided such as chlorinated lime or carbolic acid, and character, the composition of the soil, and other mechanical or chemical agen-excess or deficiency of moisture and light, into two main and other mechanical or chemical agen-cies; and those produced by other organ-ized beings, whether belonging to the actions should be nailed so as to hang and other mechanical or chemical agen-constantly wet with carbolic acid. All passages and landing outside. A large sheet also should be nailed so as to hang across the docr, and this should be kept constantly wet with carbolic acid. All remperature will produce an excitement. In a country place it is best to bury them inconsistent with healthy growth, while a low temperature destroys the connec-tion between the cells, and is one of the chlorophyll will not take place, and the plant is in consequence blanched. Ten-tor the complete development of the protection from a too free admission of tight. In tropical forests, unhealthy to indispensable, as shown by the difficulty of cultivating plants in the heart of towns. Few things are more prejudicial to plant life than excess of moisture, of uplant life than excess of moisture, of the bones have been forced out of ternder tissues of the roots, and partly from decomposition, but, more than all, joint itself or its furthest bone, and is

from the low state of temperature which is kept up at the very point where a cer-tain degree of heat is essential. Diseases springing from the actions of other or-ganisms may be classed as direct inju-ries, alterations of tissues from the pres-ence of harve of insects, exhaustion from parasitic insects or plants, especially fungi. fungi.

fungi. Dishonor of a Bill (dis-on'ur), the refusal or neg-lect to accept or pay when due a bill of exchange, or promissory note, or draft on a banker. It is absolutely necessary that the holder of a dishonored bill should give immediate notice of the non-payment to the drawers or endorsers. Disinfectant (dis-in-fekt'ant) is any substance that destroys the germs and odors of contagious and infectious diseases. The most important for practical purposes are formaldehyde,

**DISINICOURT** substance that destroys the germs and odors of contagious and infectious diseases. The most important for practical purposes are formaldehyde, chlorine, carbolic acid, sulphurous acid, Condy's fluids (containing respectively manganate and permanganate of potash), and Burnett's fluid, containing chloride of sinc. Carbolic acid is one of the most ettective, needing, however, some little care in the handling, as it sometimes causes severe burns. It does not in its common form mix with water, but floats on the surface undiluted. For application to the skin Condy's fluid is one of the readiest preparations. In cases of infec-tious or contagious disease, disinfectants, such as chlorinated lime or carbolic acid, should at once be placed about the house, especially in the sickroom and in the passages and landing outside. A large sheet also should be instantly disinfected and also the closet which receives them. In a considerable depth of earth. Every article of clothing and furniture should be carefully treated, as the germs may lurk in them and break out after a lapse of months or years. **Disintegrator** (d is-in'te-grā-tur), a

#### Dislocation

# Dismal Swamp,

Dismal Swamp, called compound when accompanied with an external wound. The most common dislocations are those of the hip, shoulder, elbow, knee and ankle, and the chief ob-stacle to their reduction is the spasmodic and violent contraction of the muscles consequent upon them, the application of considerable force often being neces-sary to set the joint. Chloroform is of great use, not only in preventing pain, but in relaxing the muscles. The most dangerous dislocations are those of the bones of the spine.—In geology it signi-fies the displacement of parts of rocks or portions of strata from the situations they originally occupied. Dismal Swamp, a large tract of ning a little south of Norfolk, Virginia, and extending into North Carolina, con-taining 150,000 acres; 30 miles long, from north to south, and 10 broad. This tract was formerly covered with trees, with almost impervious brushwood be-tween them, but it has now in part been cleared and drained. In the midst of the swamp is a lake, called Drummond's Pond, 7 miles in length. A navigable canni through the swamp connects Ches-apeake Bay and Albemarle Sound. Dismas (dis'mas). ST., the name of to mediæval legends. Dispert (dis'part), the difference be-base ring at the breech of a gun and that of the ring at the swell of the muzzle. Dispensary (dis-pen'sa-ri), a public institution, primarily in-tended for the poor, where medical advice is given and medicines are furnished free, or sometimes for a small charge. It is distinguished from a hospital in having no beds. Dispensaries are found in most harge towns in the United States and Europe. In the Old World they origi-nated in monasteries. The oldest one in the United States was opened in New York in 1700. Dispensation (dis-pen-sa's hu n) is avecption is made to the rigor of the law

power of the crown still exists. In eccle-siastical matters a bishop may grant a dispensation allowing a clergyman to hold more than one benefice or to absent himself from his parish. **Dispensatory** (d i s-pen'sa-to-ri), the same as *Pharmaco-paria* (which see)

**Dispensatory** (dis-pen'sa-tori), the same as *Pharmaco-paia* (which see). **Dispersion** (dis-pen'shun), an op ti-angular separation experienced by the component rays of a pencil of light on emerging from a refracting medium, whose surfaces are not parallel to each other, e.g., the common prism. The length of the spectrum and the relative space occupied by the colored rays vary greatly according to the refracting medium, the spectrum from a prism of oil of cassia being two or three times longer than one formed by a glass prism. **Disposition** (dis-pō-zis h'un), in general acceptation, a deed by which a person provides for the general disposal of his property heritable and movable, atter his death, equivalent to a will or testament; also a conveyance of prop-erty.

erty.

swamp is a lake, called Drummond's after his death, equivalent to a will or Pond, 7 miles in length. A navigable textament; also a conveyance of propenand through the swamp connects Chesapenke Bay and Albemarle Sound.
Dismas (dis'mas), Sr., the name of the ponitent thief, according to mediawal legends.
Dispart (dis'part), the difference between the semidiameter of the base ring at the breech of a gun and that of the ring at the breech of a gun and that of the ring at the swell of the muzzle.
Dispensary (dis-parts-ri), a public tended for the poor, where medical advice.
Dispensary (dis-parts-ri), a public tended for the poor, where medical advice in the lifteenth century to escape the Inquisition, came over to sometimes for a small charge. It is a strong repugnance to commerce, and distinguished from a hospital in having was finally permitted to follow his litering towns in the United States and Part and the Board of the inconsteries. The oldest one in ance of his Curiosities of Literature, the difference of some time at the set by which an anonymous reply to Peter arge towns in the United States and Part (Literwards a volume of reception is made to the rigor of the law as followed in 1791-1703 by the appearent of a some time afterwards a volume of reception is made to the rigor of the law and the lawers of Mich and the monarch claimed, in former the Calamitics of Authors, Quarris of Authors and Inquiry into the Literward speaker of the disciplinary the the title of Miscella consection of the advice in the States and speaker of the see and Political Character of a sould be disciplinary into the discrease of the canon law. In Formation of the event of the canon law. In Formation of the ender of the see and a bistory of commuting sentences in capital cases in capital case of the set of the set of the comment of the set of the comment of the set of the comment of the set

der the title of Amenitics of Literature. He died in 1848. The greater part of his life was passed in his library. **Diss** (dis), a town of England, Nor-folk, on the slope of a hill 18 miles south by west from Norwich. It was formerly noted for the manufacture of 'Suffolk hempen cloth,' worsted yarn and knit hosiery. Pop. 37(8). **Disseizin** (dis-sé'sin), or DISSEISIN, in law, is the dispossessing one of a freehold estate, or interrupting his seizin. Of freeholds only can a seizin be had, or a disseizin done. Whether an entry upon lands is or is not a disseizin will depend partly upon the irreunstances of the entry and partly upon the intention of the party, as made known by his words or acts. **Dissenters** (dis-ent'ers), the common name by which in Britain all Christian denominations, excepting

Dissenters name by which in Britain all ('hristian denominations, excepting that of the Established Churches, are usually designated, though in acts of parliament it generally includes only Protestant dissenters, Roman Catholics being referred to under their specific name. The most important bodies of English dissenters are the different bod-ies of Methodists, the Congregationalists and the Baptists: and of Scotch dissent-ers, the Free Church and the United Presbyterian Church. The Noncon-formists were dissenters from the Eng-lish Church. lish Church.

Ish Church. **Dissentis** (dis's en-tis). a town of Switzerland, canton Grisons, about 3800 ft. above the sea, at the junc-tion of the Middle and Vorder Rhine, with a Benedictine abbey established in 614. Pop. 1400.

**Dissociation** (dis-sö-shi-å's h u n), a express the partial decomposition which takes place when chemical compounds are exposed to a high temperature; as a white-hot platinum tube some of it is decomposed and an explosive mixture is decomposed and an explosive mixture of oxygen and hydrogen may be collected. In his writings on dissociation Ste. Claire Deville uses the term in a more extended sense, as denoting the separation of a hody into its constituents (whether sim-ple or compound) at a temperature in-ferior to that at which its composition is usually seen to take place.

picture is drawn out of focus gradually,

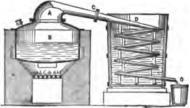
picture is drawn out of focus gradually, and a second substituted, which is brought gradually into focus, thus pro-ducing the haze and brilliancy which have gained this sort of exhibition its name. If two lanterns are used, they are placed side by side with their lens tubes slightly convergent, so that the images may be superposed on the screen. By means of a revolving shutter either lantern can be wholly or partially shut off and the image of other lanterns be correspondingly disclosed. **Dissonance** (dis'u-nans), in music, from the union of two sounds not in accord with each other. The ancients considered thirds and sixths as disso-nances; and, in fact, every chord except the perfect concord is a dissonant chord. The old theories include an infinity of dissonances, but the present received sys-tem reduces them to a comparatively small number. The most common are those of the tonic against the second, the fifth against the sixth, or (the most fre-quent of all) the fourth against the ifth. **Distonf** (dis'taf), the first instrument quent fifth.

Distaff (dis'taf), the first instrument mployed in spinning. It con-sisted of a staff, on one end of which the wool or flax was rolled. The spinner held it in the left hand, and drew out the fibers with the right, at the same time twisting them. A small piece of wood called a spindle was attached to the thread, the weight of which carried it down as it was formed. When the spindle reached the ground the thread which had been spin was wound round it, and it was then again fastened near the beginning of the new thread. Distemper (distem'per), a disease of the dog commonly con-sidered as of a catarrhal nature. In most cases a running from the nose and eyes is one of the first and chief symp-

eyes is one of the first and chief symptoms, the defluction becoming after some time mucous and purulent. The animal mucous and purulent. is subject to violent fits of coughing com-bined with vomiting, loses its appetite, its flesh begins to waste, and if the disease be virulent, symptoms of affection sense, as denoting the separation of a disease be virulent, symptoms of affection hody into its constituents (whether sim-ple or compound) at a temperature in-ferior to that at which its composition is usually seen to take place. Dissolving Views (di-solving) are bleeding are the principal remedies: diar-glass magnified and thrown with great and to reduce the violence of the fits warm distinctness upon a screen by means of bathing and antispasmodics should be one or two magic lanterns with strong resorted to. The distemper is generally lenses, and illuminated by the oxyhydro-gen light. If one lantern is used the lifetime.

#### Distemper

#### Distemper



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#### Distoma

collected. Shale is distilled solely for the sake of the oil. Distoma (dis'to-ma), a genus of tre-matode or suctorial parasiti-cal worms or flukes, inhabiting various parts in different animals. D. hcpati-cum, or common liver fluke, inhabits the gall-bladder or ducts of the liver in sheep, and is the cause of the disease known as the rot. They have also been discovered in man (though rarely), the horse, the hog, the rabbit, birds, etc. In form it is ovate, flattened, and pre-sents two suckers (whence the name), of which the anterior is perforated by the aperture of the mouth. A branched water-vascular system is present, and opens posteriorly by a small aperture. All the animals of this genus present the phenomenon known as 'alternation of generation.' generation.'

phenomenon known as anternation of generation." Distress (dis-tres'), in law, is the tak-ing of a personal chattel of a wrongdoer or a tenant, in order to obtain satisfaction for the wrong done or for rent or service due. If the party whose goods or cattle are seized disputes the injury, service, duty, or rent, on account of which the distress is taken, he may replevy the things taken, giving bonds, at the same time, to return them or pay damage in case the party making the distress shows that the wrong has teen done, or the service or rent is due. Another description of distress is that of *ettachment*, to compel a party to appear before a court when summoned for this purpose. The distresses most frequently made are on account of rent and taxes and damage feasance. and damage-feasance.

(di<del>s-</del> tri-bū'-**Distribution of Animals** shun). See Zoology.

Distribution of Plants. See Botany.

District Attorney (dis'trikt), public pro **JISTRICT Attorney** (dis'trikt), the tor within a defined district. One is elected in each county in each state, and the Federal government also appoints one for each United States judicial district. The state district attorney prosecutes criminals before the state courts, while the government official prosecutes offences against the Federal government and comagainst the Federal government and con-ducts civil actions in its behalf.

each State, but the larger States have more than one. See Colum-

District of Columbia. See Districts, CONGRESSIONAL, the divi-sions in the United States which each return a representative to Congress. Their number varies at differ-ent times, being fixed after each decen-nial census.

nial census, Ditch (dich), a trench in the earth made by digging, particularly a trench for draining wet land, or for making a fence to guard enclosures, or for preventing an enemy from approach-ing a town or fortress. In the latter sense it is called also a *fosse* or moat, and is dug round the rampart or we' between the scarp and counterscarp. See *Fortification*. Fortification.

Dithyrambus (d i t h-i-r a m' bus), DITHYRAMB, in Greek literature, a poem sung in honor

Dithyrambus (d i t h-ir a m' bus), Dithyrambus (d i t h-ir a m' bus), Greek literature, a poem sung in honor of the god Bacchus or Dionysus, at his festivals. It was composed in a lofty and often inflated style; hence the term is applied to any poem of an impetuous and irregular character. Ditmarshes (d it' marsh-es; German, Ditmarshes (d it' marsh-es; German, district of Holstein, in Germany, consisting of a monotonous flat stretching along the German Ocean, between the mouths of the Elbe and the Eider, and so little protection of strong embankments. The area is 500 sq. miles, and the total pop. above 70,000. Dittany (dit'a-ni), the popular name

nice is 10,000. Dittany (dit'a-ni), the popular name Dictamy (dit'a-ni), the popular name Dictamnus, an herb of the rue family (Rutaceae), found in the Mediterranean region. The leaves are pinnate, the large white or ross-colored flowers are in terminal racemes. The whole plant is covered with oily glands, and the secreted oil is so volatile that in hot weather its vapor becomes slightly inflammable. D. Frazinella and D. albus are found in gardens. The dittany of the United States is Cunila Marian, a labiate plant. The dittany of Crete is Originum Dictamnus, and the bastard dittany is a species of Marrubium (horehound), both labiates. labiates.

against the Federal government and con-ducts civil actions in its behalf. District Courts (dis'trikt), an im-portant series of the northwest coast, off the mouth ex-courts in the United States, each under a single judge, and having original juris-separated by a very narrow channel. It diction in civil, criminal and admiralty is 7 miles in length, from g. to w., and 2 causes, in which the general government are con-or others of the government are con-series. They are now over one hundred in number. Generally there is one for

#### Diuretics

Diurna (dī-ur'na), a name sometimes given to the diurnal lepidopte-rous insects or butterflies.

**Diurna** (di-ur na), a name sometimes rous insects or butterflies. **Divan** (di-var'), a Persian word hav-ing several significations. It is used in Turkey for the highest council of state, the Turkish ministry; also for a large hall for the reception of visitors. Among several oriental nations this name is given to certain collections of lyric poems by one author. The dirans of flatiz and Saadi, the Persian poets, are among the most important. In Western Europe the term is applied to a café, and to a kind of cushioned seat. **Divers** (di'verz), birds remarkable for (Colymbidae) are a family of swimming birds (Natatores), characterized by a strong, straight, rather compressed pointed bill about as long as the head; a short and rounded tail; short wings; thin, compressed legs, placed very far back, and the toes completely webbed. They prey upon fish, which they pursue under water, making use partly of their wings, but chiefly of their legs and webbed feet in their subaqueous progres-sion. The leading species are the great northern diver (*C. septentriondis*), and the black-throated diver (*C. Arcti-cus*). These birds inhabit the Arcti-geas of the New and Old worlds; they are abundant in the Hebrides, Norway, Sweden and Russia. The great north-ern diver, loon, or ember goose, is about 23, feet long, and is of handsome plum-arge. **Dividend** (div'i-dend), literally what Europe the term is applied to a cale, of entrails and flight of birds, lots, omens, Divers (divers), birds remarkable for (Colymbide) are a family of swimning birds (Natatores), characterized by a stroug, straight, rather compressed bean a short and rounded tail; short wings the Bible; oneiromancy, by areams; pyromancy, by fire, etc. Divine Right (div'la'), the claim Divine Right (div'la'), the claim below, by applicate as ruling by applicate as ruling by applicate as ruling by applicate as ruling; by applicate as ruling by applicate as ruling; by applicate as ruling by applicate as ruling; by applicate as ruling; by applicate as ruling by applicate as ruling; by applicate asupplicate as ruling; by applicate as ruling; by applicate

is now a place of no importance. Pop. these perform work of extraordinary fine-of island, 14.614. Diuretics (di-u-ret'iks), medi ines in-Diuretics (di-u-ret'iks), medi ines in-cretion and discharge of urine. They either act directly on the kidneys, exci-ing these organs to increased action; or indirectly by first influencing the circula-tion. Of the first class are squill, broom, juniper, alcohol, potash, etc.; of the second, digitalis, elaterium, cream of tar-tar, etc. Diurna (di-ur'na), a name sometimes given to the diurnal lepidopte-not second digitalis, elaterium, cream of tar-given to the diurnal lepidopte-tar.

for which reason they are used by this ners and dyers. **Divination** (div-i-nā'shun), the act of divining; a foretelling fu-ture events, or discovering things secret or obscure, by the aid of superior be-ings, or by other than human means. In ancient times divination was divided into two kinds, natural and artificial. Natural divination was supposed to be effected by a kind of inspiration or divine afflatus; artificial divination was effected by certain rites, experiments, or observations, as by sacrifices, observation of entrails and flight of birds, lots, omens, positions of the stars, etc. Among modes of divination were: axinomancy, by axes: belomancy, by arrows; bibliomancy, by

# Diving-dress



Diving-dress and Diving-helmet by Stebe, Gor-man & Co.---a, Pipe by which air is supplied; ô, valve by which it escapes.

usually three eycholes, covered was atrong glass, and protected by guarda. Air is supplied by means of a flexible tube which enters the helmet and com-

**Diving-dress** 

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tions under the conditions that obtain with the common form of diving suit. Yet this depth has probably never been reached. One hundred feet is the rare descent of the average diver and 150 feet his maximum. With the new apparatus a submergence of 212 feet has been ob-tained, and this might have been indefi-nitely extended had there been a greater depth of water at the place where the er-periment took place - Long Island Sound during the latter part of 1914. The new diving apparatus is con-

The new diving apparatus is con-structed entirely of metal, is rigid and is made of such materials that it is strong enough to resist the great pressures found in the depths to which it can penetrate. The material used is an alloy of alumi-

num, and the diving case weighs complete feet, the time of his ascent must be not about 500 pounds. When in the air, the less than one hour and a half. In the about 500 pounds. When in the air, the wan inclosed in it is incapable of imparting movement to it, but in the water, which counterbalances the dead weight of the apparatus, he can easily move the articulated sections as well as give himself motion through the water. The articumotion through the water. The articu-lated portion consists of about 50 turning lated portion consists of about 50 turning joints, fitted with leather packing, which swells and has an increased effectiveness under increased water pressure. To pre-vent the pressure-force of the deep sea from jamming the joints, roller bearings are so arranged about them that freedom of action is constantly maintained. The diving case is not absolutely water-tight, nor is it desired that it should be so, as the slight leakage acts as a lubricant to the joints, and aids in their movements. The danger arising from the intake of water thus into the diving case is averted by the action of an ingenious pump appli-ance, which serves two purposes: that of pumping the water out and pumping the air in. The diver in this invention carries his pump with him and has air supplied to him at atmospheric pressure. At the back of the diving case is a recess and in it is installed a compact but pow-erful pump, which sucks from the feet of the suit all leakage and forces it at once outward. This pump is worked by com-pressed air, and the air after performing its mechanical part of driving the pump, is exhausted into the suit for the diver to breathe and then passes to the surface through the free space in an armored rub-diver tube, within which are led down to the diver the compressed air pipe for driving the bump, and the electrical connections or telephone and lamp. Thus the diving case receives a thorough ventilation, and it has been found that should the pump fail to work for a number of minutes there would still be enough air remaining in the diving case and the tube space to supply the diver's needs for at least the length of time he is being hauled to the surface. During the experiment in Long Island Sound the pump was stopped for the minutes, while the diver was stopped for a depth of 100 feet. He suffered no incon-venience, and when the compressor again was started he was lowered to a depth of 212 feet. If such a condition as failure of the pump to work for ten minutes had arisen during a descent in the old elas joints, fitted with leather packing, which swells and has an increased effectiveness

Long Island Sound experiments the diver was hoisted to the surface in 87 seconds. Ile was totally unaffected by the abrupt change in pressure, although the deepest he had ever been was 90 feet, and on that occasion he had suffered from bleeding at the nose and ears.

Divining Rod (di-vin'ing), a wand or twig of hazel or willow used especially for discovering mewillow used especially for discovering me-tallic deposits or water beneath the earth's surface. It is described by G. Agricola (*Dc rc metallica*, 1546). It has also a modern interest, which is set forth by Prof. W. F. Barrett, F.R.S., the chief modern investigator. The use of the divining rod at the present day is almost wholly confined to water finding, and in the hands of certain persons it undoubtthe hands of certain persons it undoubt-edly has produced results along this line that are remarkable, to say the least. The that are remarkable, to say the least. The professional water-finder provides himself with a forked twig, of hazel, for instance, which twig, held in balanced equilibrium in his hands, moves with a sudden and often violent motion, giving to the on-looker the impression of life within the twig itself. This apparent vitality of the twig is the means whereby the water-finder is led to the place where he claims underground water to exist, though its presence at that particular spot was hith-erto wholly unsuspected. While failure is sometimes the outcome of the water-finder's attempts, success as often, and, indeed, according to the testimony of Pro-fessor Barrett, more often crowns his effinder's attempts, success as often, and, indeed, according to the testimony of Pro-fessor Barrett, more often crowns his ef-forts. Various explanations, scientific and other, of the phenomenon have been advanced. Professor Barrett ascribes it to 'motor-automatism' on the part of the manipulator of the divining rod, that is, a reflex action excited by some stimulus upon his mind, which may be either a sub-conscious suggestion or an actual impre-sion. He asserts that the function of the forket dwig in the hands of the water-finder may be to act as an indicator of some material or other mental disturbance within him. While a hazel or willow twig seems to be preferred by the professional water-finder, twigs from the beech, holly or any other tree are employed; some-times even a piece of wire or watch spring is used, with apparently as good resulta. Divisibility (di-vis-i-bil'i-ti), that gen-tieles are capable of separation. Nu-merons examples of the division of matter to a degree almost exceeding be-

#### Division

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#### Divorce

Dix

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# Djidda

#### Djidda. See Jiddsh.

Djokdjokarta (jok-yokår'tå), a Dutch residency in the island of Java, on the south coast, with a capital of the same name. Its for-rests abound in teak: Its natural fertility is great, and rice, coffee and tobacco are extensively cultivated. It is ruled by a sultan who is dependent on the Dutch. Pop. 850,000. The town is large and regular, and the seat of the Dutch resi-dent, which is a fort commanding both the palace and the town. Pop. 58,300. Dmitrof (dm-trof'), a town of Rus-sia, in the government and 45 miles north of Moscow. It has manu-factures of cloths, leather and porcelain. Pop. 4550. Dmitrovsk (dmè-troisk'), a town in

factures of cloths, leather and porcelain. Pop. 4550. **Dmitrovsk** (dmě-troisk'), a town in ment of Orel, on the highway from Mos-cow to Kiev. There are manufactures of leather and soap. Pop. 5259. **Dnieper** (në-për; R ussia n, Dsjepr, dnyepr; anciently borysthé-nest), a great river of Russia which rises in the government of Smolensk, flows tirst southwest, then southeast, and again southwest to the Black Sea. It begins to be navigable a little above Smolensk, and has a total length, including wind-ings, of 1230 miles. Among its tributaries are the Beresina, the Pripet, the Desna and the Psiol. In its lower course there are important fisheries. Between Kiev and Alexandrovsk it forms a series of cataracts, which are now being removed by blasting of the rocks. Since 1838 there have been steamboats on the river, and the trade carried by it is considerable. **Dniester** (něstěr: Russian, Dnjestr; anciently tyras), a large river of Europe, which has its source in the Carpathian Mountains, in Austrian Galicia, enters Russia at Chotin, and emp-ties itself into the Black Sea. After a course of about 750 miles. Its navigation is difficult on account of frequent shal-lows and rapids. **Doab** (do-ab); that is, Two Waters), a name in Hindustan applied

29 - 3

springs, bathing establishments, etc. Pop. 5000. **Dobell** (do-bel'), SYDNEY, an English poet and man of letters, born in 1824. His first poem, The Roman, appeared in 1850, and was favorably re-ceived by the critics. Among his other works are Balder, Sonnets on the War, England in Time of War, etc. He died in 1874. Döhalm (des'haln)

Döbeln (des'beln), a town of the kingdom of Saxony, about 40 miles southeast of Leipzig, with a great trade in grain and manufactures of cloth, yarn, leather, lacquered wares, etc. Pop. (1905) 18,907. Doberan. See Dobberga.

Dobereiner's Lamp (do'be-ri-nér), **DODEREINEY'S LAMP** a contrivance for producing an instantaneous light, in-vented by Professor Dobereiser, of Jena, in 1824. The light is produced by throw-ing a jet of hydrogen gas upon recently prepared spongy platinum, when the metal instantly becomes red hot, and then ests fire to the gas. The action depends upon the readiness with which spongy platinum absorbs gases, more especially oxygen gas. The hydrogen is brought into such close contact with oxygen (de-rived from the atmosphere) in the pores of the platinum that chemical union, at-tended with evolution of light, takes place. place.

are the Boresini, the Pripet, the Desna tended with evolution of light, takes and the Psiol. In its lower course there are important fisheries. Between Kiev place.
Dobrudja (do-brud'ja), Tim, a territory forming pa.. of the kingdom of Roumania, included between two places.
Dobrudja (do-brud'ja), Tim, a territory forming pa.. of the kingdom of Roumania, included between the places.
Dobrudja (do-brud'ja), Tim, a territory forming pa.. of the kingdom of Roumania, included between two places.
Doniester (nös'ter: Russian, Dajcstr: in from Silistria to a point a few miles south of Mangalia. There are some fertile spots, but on the whole it is marshy and unhealthy. The population is difficult on account of frequent shallows and rapids.
Doab (do-ab): that is, Two Watersh, a name in Hindustan applied a name in Hindustan applied here on the Jumna is usually the Ganges and the Jumna is usually the Ganges and the Jumna is usually the Badadagh. Pop. 207, SNS. Colored the Doab: other similar tracts between two rivers. The tract between their distinctive names, the Punjab kind Bari-Doab, Rechan Doab, Sinder Sagar Doab, etc.
Dobberan (dod'eran), or DougeAN. The sense of poems, chiefly graceful lyrics of Fielding, Steele, Goldsmith, etc. He died September 2, 1921.
Dobberan (dod'eran), or DougeAN. The sense of regarding Christ's body as 29-3

#### Docetæ

#### Dock

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# **Dockyards**

plan a number of vessels can be floated for overhauling and repairs in very shal-low water and at comparatively slight expense. Docks in the United States are not of so much importance to com-merce as in England, the rise and fall of the tides being far less. Vessels can be loaded or unloaded without difficulty at the wharves of any of the Atlantic or Gulf ports without aid of docks. There are, however, some very fine docks for convenient handing of merchandise; for instance the Atlantic docks at Brook-lyn and large dry-docks connected with the navy yards. Dockwards, establishments supplied

for instance the Atlantic docks at Brook in the section of the Chira wind London and was at one time the sect of the court in the next y gards.
Dockyards, with all sorts of naval of arches, the archideacon's court, the court of admiralty, etc. The practitioners and proctors, in 1857 an act was passed the construction, repairs and equipment in these courts were called advocates and proctors. In 1857 an act was passed the construction of the Church, a name of arches, the archideacon's court, the courts were called advocates and proctors. In 1857 an act was passed prismouth, Devonport and Pembrok, Bottors of the Church, a name of arches, the archideacon's courts and proctors. In 1857 an act was passed prismouth, Devonport and Pembrok, Bottors of the Church, a name of service and foregory the solution. Never, and the court is were called advocates and proctors of the Church, a name of the Calle of Good Hope, Gibraltar, Serra, Leone, Trincomale, Grout of the Greek Fathers (Athama, Anigua, Janaida, Nierra, Leone, Trincomale, Great, Leone, Trincomale, Sirabot, States, navy yards are universite the ontext control of the Admiralty, cyril, John Damascene, Chrysol and Washingthol. D. C. The naval are solvent at Boston, Mass.; Broeklyn, N. Y.; Charleston, N. S. C. Mare Island, Calf. Philadelphia, and Washington, D. C. The naval and the farming, such as Thouse Agu, and Washington, D. C. The naval and the replication of preach politic inservers and proctor in States, and the replication and science in the other title of Mark and the right of granting of the source of power do confering the only solution. The title of Doctor is in some of the solution and science in the wide replication of the songer and there replication and

(Doctor of Laws) at the Scotch univer-sities. The popes and the archbishops of Canterbury exercise the right of confer-ring the degree of Doctor both in law and divinity. In the United States seats of learning, while usually conferred after examination, it is common to give an honorary degree to persons of distinc-tion, without regard to their educational fitness fitness.

ntness. **Doctor's Commons**, was a college founded for the Doctors of the Civil Law in London. and was at one time the seat of the court of arches, the archdeacon's court, the court of admiralty, etc. The practitioners in these courts were called advocates and proctors. In 1857 an act was passed empowering the college to sell its prop-erty and dissolve, and making the priv-ileges of the proctors common to all solicitors. Doctors of the Church a name

## Dodder

#### Doddridge

**Doddridge** (dod'rlj), PHILIP, an Eng- covered with down instead of feathers. lish Dissenting divine, with short, ill-shaped legs; a strong, horn in London in 1702. He was an bulky, hooked beak, and wings and tail earnest pastor, and the author of many so short as to be useless for flight. Its



Lesser Dodder (Cuscùta epithymum).

hymns, devotional treatises, etc. The Rise and Progress of Religion in the Noul and The Family Expositor are among the best known works. He died among t in 1751.

Dodecagon (do-dek'a-gon) a figure en-closed by twelve equal equal straight lines.

straight lines. Dodecahedron (dö-dek-a-hē'dron), a regular so lid con-tained under twelve equal and regular pentagons, or having twelve equal bases. Dodecannese (dö'de-kan-nëz'), The, a name given to a group of islands off the s. w. coast of Asin Minor. Ceded by Turkey to Italy, then to Greece by peace treaty of 1920. Dodge, MARY ABIGAL, author, bern in 1838; died in 1896. Her works, weit-ten under the name of Gail Hamilton, are piquant and humorous, including Country Living and Country Thinking, Gala Dous, Battle of the Books, Tucchre Miles from a



Dodo, from painting in the Belvedere, Vienn

extinction was due to its organization not being adapted to the new conditions, which colonization and cultivation introduced. **Dodona** (do-do'na). a celebrated lo-cality of ancient Greece, in Epirus, where was one of the most an-cient Greek oracles. It was a seat of Zeus, whose communications were an-nounced to the unissues in the rusting

Zeus, whose communications were an-nounced to the priestesses in the rustling of the leaves on its oak tree and the murmuring of water which gushed forth from the earth. **Dodsley** lish poet and dramatist, born in 1703; died in 1704. Among his writ-ings was a tragedy, entitled Cleone, which had some success on the stage. A selec-tion of Fables in prese, with an Essay on Fables prefixed, was one of his latest productions. He planned the Annual Register (commenced in 1758); the Collection of Old Plays, twelve vols. 12mo, which new chiefly sustains his name as a publisher; and the Collection of Poems by Different Hands, six vols. 12mo.

Licing and Country Thinking, Gala Daws, Battle of the Books, Tuchre Miles from a Lemon, etc. Dodge City, a city, county seat of the Arkansas River, in a grain and Eve-stock country. The shops of the Santa Fé R. R. are here, Pop. (1920) 5061. Dodgson, Charles LUTWIDET (1832) Dodgson, ON heter known as 'Lewi Carroll, under which pseud own he wrett Alice in Wonderland, Through the Looking (lass and other charming books. He was born at Warrington, Euclund, and was a clergyman and mathematical lecturer. Dod (dö'do: Didus ineptus), an ex-signed by naturalists to the order and the island of Mauritius, and as a signed by naturalists to the order modification of the throw. It was a semblances of structure, the susceptibility massing, charge is the the trans a swan.

## Dogbane

cated, the fact of the two animals breed-ing together and producing fertile young, and the equality in the period of gesta-tion. But all these points are subject to exceptions and reservations which make the matter doubtful. It is gener-ally agreed that no trace of the dog is to be found in a primitive state, the dhole of India, and dingo of Australia heing believed to be wild descendants from domesticated ancestors. Sevenal at-tempts to make a systematic classificadhole of India, and dingo of Australia being believed to be wild descendants from domesticated ancestors. Several at-tempts to make a systematic classifica-tion of the varieties of dogs have been made, but without much success, it being difficult in many cases to determine what are to be regarded as types, and what as merely mongrels and cross-breeds. Colonel Hamilton Smith divides dogs into six groups, as follows:--(1) Wolf-dogs, including the Newfoundland, Es-quinnaux, St. Benard, shepherd's dog, etc.; (2) Watch-dogs and Cattle-dogs, including the German boar-hound, the Danish dog, the matin dog, etc.; (3) Greyhounds, the lurcher, Irish hound, etc.; (4) Hounds, the bloodhound, stag-hound, foxhound, setter, pointer, spaniel, cocker, poodle, etc.; (5) Cur-dogs, in-cluding the terrier and its allies; (6) Mastiffs, including the different kinds of mastiffs, buildog, pug-dog, etc. (See the articles under these names.) Dogs have in the upper jaw six incloars on each side, the first three, which are small and have cutting edges, being called false molars. The forefeet have five toes the hind-feet four or five, the claws are strong, blunt and formed for digging, and are not retractile. The tail is generally long, and is curled upwards. The female has six to ten mamme; she goes with young nine weeks, as a rule. The young are born blind, their eyes opening in ten to twelve days; their growth ceases at two years of age. The dog commonly lives about ten or twelve years at the most, twenty. Dogbane (A pocý num androszmifo-lium), an American plant found from Canada to Carolina, belong-

years at the most, twenty. **Dogbane** (A pocynum androsæmifo-lium), an American plant found from Canada to Carolina, belong-ing to the nat. order Apocynacese (which see). The whole plant is milky; the root is intensely bitter and nauseous, and is employed in America instead of ipecacuanha. Another species (A. Cas-nabinum) yields a useful fiber, and is known as Canada or Indian hemp.

Dog-cabbage. See Dog's-cabbage.

back it is often furnished with a boot for holding dogs. **Dog-days**, the name applied by the about forty days, the hottest season of the year, at the time of the heliacal rising of Nirius, the dog-star. The time of the rising is now, owing to the precession of the equinoxes, different from what it was to the ancients (July 1); and the dog-days are now counted from July 3 to August 11, that is, twenty days be-fore and twenty days after the heliacal rising. rising.

fore and twenty days after the heliacal rising. **Doge** (döj; from Latin dur, a leader, title of the first magistrates in the Ital-ian republics of Venice and Genoa. The first doge of Venice cleeted for life was l'aolo Anafesto, in 697 and in Genoa, Simon Boccanera, in 1339. In the former city the dignity was always held for life; in the latter, in later times, only for two years. In both cities the office was abolished by the French in 1797. **Dogfish**, a name given to several near around the British Isles. The rough skin of one of the species (Scyllium catúlus), the lesser-spotted dogfish, is used by joiners and other artificers in polishing various substances, particularly wood. This species is rarely 3 feet long. S. canicula, the greater dogfish, is from



Small-spotted Dogfish (Scyllium catilus) 3 to 5 feet in length. It is blackish-brown in color, marked with numerous small, dark spots. Both species are very voracious and destructive. Their flesh



#### Dutch Dogger.

Dog-cart, a sort of double-seated gig is hard, dry and unpalatable. The for four persons, those be- common or picked dogfish (Acanthias fore and those behind sitting back to culgaris) is common in British and N.



#### Dogger

American seas, and is sometimes used as food. It is fierce and voracious. **Dogger** (d o g' e r), a Dutch vessel equipped with two masts and somewhat resembling a ketch. It is used particularly in the German Ocean for the cod and herring fisheries.

the cod and herring fisheries. **Dogger-bank**, an extensive sand-ocean, celebrated for its cod-fishery. It commences about 36 miles east of Flam-borough Head and extends E. N. E. to within 60 miles of Jutland. in some places attaining a breadth of about 60 miles. Here a German naval squadron was put to flight by the British on Janu-ary 24, 1915. **Dog-grass** 

Dog-grass. Same as Couch-grass.

Dog-lichen, the popular name of a plant, Peltidea canina, common on damp ground, stones and trunks of trees. It was formerly sup-posed to be a specific for hydrophobia. Also known as ash-colored ground liverwort.

Also known as ash-colored ground heer-wort. **Dogma** (dog'ma), an article of re-trines of the Christian faith. The his-tory of dogmas, as a branch of theology, exhibits in a historical way the origin and the charges of the various Christian systems of b dief, showing what opinions were received by the various sects in different ages of Christianity, the sources of the different creeds, by what arguments they were attacked and sup-ported, what degrees of importance were attached to them in different ages, the circumstances by which they were af-fected, and the mode in which the dogmas were combined into systems. Lectures on this subject are common in the Ger-man universities. **Dogmatics** (dog-mat'iks), a system-articles of Christian faith (dogmas), or the branch of theology that deals with

the branch of theology that deals with them. (See *Dogma*.) The first attempt to furnish a complete and coherent sys-tem of Christian dogmas was made by

Though it is slightly acrid and purgative, it is sometimes used as a pot-herb. Dog's-fennel, a British plant found (Anthëmis Cotüla), with acrid, emetic properties. It derives its name of dog's-fennel from some resemblance of its leaf to fennel and from its bad smell. Dog's-mercury, Mercuridis peren-phorbiaces, an herb common in Britain. It has poisonous properties, and may be made to yield a fugitive blue dye. Dog's-tail Grags (Cynogirus), a

made to yield a fugitive blue dye. **Dog's-tail Grass** (Cynosürus), a (ynosürus cristätus is a perennial found wild all over Great Britain in pastures. lawns and parks. Its roots are long and wiry, and descending deep into the ground ensure the herbage against suffering from drought. Its stem is from 1 to 2 feet high and its leaves are slightly hairy. **Dog-star**, a name for Sirius, the star the dog-days (which see). **Dog's-tooth Ornament** an archi-

Dog's-tooth Ornament, an archi-tectural ornament or mold-



tecture.

Dog's-tooth Violet, Erythronium denseconic, a liliaceous plant grown in gardens. so called from the appearance of its white bulbs.

Dog-tooth, or CANINE TOOTH, one of jaw placed between the foreteeth and the grinders. They are sharp pointed, re-sembling a dog's teeth.

the branch of theology that deals with them. (See Dogma.) The first attempt to furnish a complete and coherent sys-tem of Christian dogmas was made by Origen in the third century. Dog-parsley, same as fool's pars-Dog-orse, the Rosa canina, or wild By the Dutch invention of forming stand-ards much use is made of the dog-rose for budding purposes. Dog's-cabbage, log-CABBAGE, Thelyg-modinces, found in the south of Europe.

## Doiley

guisses. It is a common shrub in copses and hedges in England the small, cream-white flowers are borns in dense, round clusters. The wood is used for skewers and for charcoal for gunpowder. The *C. mascills* is known as the cornel tree. *Cornus forids* and other American species are also called dorwood. Its leaves turn are also called dogwood. Its leaves turn red before failing and add much to the autumn beauty of American woods. The 'poison degwood' of America is *Rhus renenats*, one of the sumachs. See Cornel, Cornacea

**Doiley** (doi'li), a small ornamental napkin used at table to set

glasses on at dessert. Doit, an ancient Scottish coin, of which eight or twelve were coust to a DOIL, eight or twelve were equal to a penny sterling. In the Netherlands and Lower Germany there was a coin of sim-

Jenny sterling. In the Netherlands and Lower Germany there was a coin of similar name and value.
Dolabra (do-là'bra), the Latin name for a celt. See Celts.
Dolbear (do'lbàr), AMOS EMERSON, wich, Connecticut, in 1837; died in 1910. He was professor at Kentucky University, 1807-74, and afterward of physics and astronomy in Tuft's College. He made inventions in telegraphy and wrote Art of Projecting, The Speaking Telephone, Matter, Ether and Motion, Natural Philosophy, etc.
Dolce (dol'chà), or DOLCEMENTE, in Matter of the Florentine store that the music is to be executed softly and sweetly.
Dolci (dol'chà), CARLO, a celebrated painter of the Florentine school, was born at Florence in 1610, and died there in 1686. His works, principally heads of madonnas, saints, etc., have a character of sweetness and melancholy. Among his chief productions are Nt. Cocilia at the Organ and Herodias with the Head of John the Baptist, both in the Dresden Gallery, and St. Andrew is Prayer, at the Pitti Gallery.
Dolcinites (dol'chē-nits), a Christian form their leader Dolcino. They arose in 1304 as a protest against the Papacy, but were suppressed by the troops of the Inquisition in 1307.

Prussian blue, hosiery, ironware, leather, etc. Pop. (1906) 11,106. Dole, SANFORD BALLARD, was born in ican parentage, in 1844. He studied law, practiced it in Honolulu, and became a member of the Hawaiian legislature and judge of the supreme court. He was a leader in the reform movement of 1887 and on the formation of a republic in 1893 was made its president. When Hawaii was annexed to the United States he continued in power as govern-or of the islands, and of the Territory of Hawaii in 1900. He has been an United States district judge in the terri-tory since 1903. Dolerite (dol'e-rit), a variety of trap-rock composed of augite and labradorite with some titaniferous mag-netic iron ore and other minerals. Dolgelley (dol-geth'le), a to wn of court, near the foot of ('ader Idris. It has manufactories of woolens, flan-nels and cloths. Pop. (1911) 2160. Dolichocephalic (dol-i-kousef'a-lik), long-h e a d ed; a term used in ethnology to denote those skulls in which the diameter from side

**Dolichocephalic** (tong-here a ded; a term used in ethnology to denote those skulls in which the diameter from side to side is less in proportion to the longi-tudinal diameter (i. c., from front to back) than 8 to 10. **Dolichos** (dol'i-kos), a genus of le-guminous plants, suborder Papilionaces. They are found in the tropical and temperate regions of Asia, Africa and America, and all produce edible legumes. D. scsquipedalis, which is also grown in the south of France, has pods a foot in length and containing seven to ten kidney-shaped seeds. D. *Lignõsus* is one of the most common kid-ney beans in India. D. tuberõsus of Martinique has a fleshy, tuberous root which is an article of food. **Dolichosaurus** (dol-i-ko-sa/rus: long

**Dolichosaurus** (dol-i-ko-sa'rus; 'long nake-like reptile found in the chalk, whose remains indicate a creature of aquatic habits, from 2 to 3 feet in leasth length.

in 1304 as a protest against the Papacy, length. Inquisition in 1307. **Doldrums** (dol'arumz), among sea-value of 100 cents. The same name is men, the parts of the ocean near the equator that abound in weight and value, though differing some-calms, squalls and light, baffling winds; what in different countries, current in otherwise known as the horse-lati-tudes. **Dôle** (dôl), a town in France, Jura, 26 Roman origin, was long the capital of reant to come is from the Dutch (also Dan-Franche Comté, and has some interest-ing antiquities. The manufactures are Bohemia, in 1518. The sign \$, used in

# Dollar

## Dollart

this country to signify a dollar, is sup-posed to date from the time of the pillar dollar of Spain. This was known as the 'Piece of Eight' (meaning 8 reals), the curve being a partial representation of the figure 8. The two vertical strokes are thought to represent the Pillars of Hercules, which were stamped upon the coin itself.

coin itself. Dollart (dollert). THE, a gulf of the German Ocean, at the mouth of the Ems, between the Dutch province of Groningen and Hanover. It was originally dry land, and was formed by irruptions of the sea, which took place in 1277 and 1530, overwhelming thirty-four large villages and numerous ham-lets.

in 1-11 and 1000, overwhelming thirty-four large villages and numerous ham-lets. **Döllinger** (deul'ing-ér), JOHANN JOS-Bern theologian and leader of the Old Catholie party, was born at Bamberg, in Bavaria, in 1700. In 1822 he en-lished The Doctrine of the Euclorist during the Dirst Three Centuries, a work which won him the position of beturer on church history at the Uni-versity of Munich. In later years he took an active part in the political strug-gles of the time as representative of the university in the Bavarian parlia-ment, and as delegate at the Diet of Frankfort voted for the total separation of church and state. In 1861 he deliv-ered a course of betures, in which he attakot the temporal power of the papacy. But it was first at the Cen-menical Council of 1869-70 that Dr. 1661 linger became fatious over Europe by bis opposition to the doctrine of papal infallibility. In consequence of his op-position to the vatican decreas he was even anneated in 1871 by the Arch-bidon of Vunich. A few months later to was cheeted rector of the University of Munich, and in 1873 rector of the Koval Academy of Science, Among his on Christmann, A Stetler of Luber, University and the Church, etc. He doi in 1800. Dollond Colored b, Jon's, an English outbar of Kennen, A few heat english outbar of Kennen, A few heat of Luber,

bining introduction of the term of the type of family (Delphinidæ) which in Dolman (boltnam), a long robe worn cludes also the porpoises and narwhal, garment. It is seen in front, and has habiting every sea from the equator to

narrow sleeves. It has given its name to a kind of loose jacket worn by ladies. **Dolmen** (dol'men), a name some-times used as equivalent to cromlech, sometimes in a distinctive sense. Sir John Lubbock maintains that cromlech should be applied to a stone circle, dolmen to a stone chamber, such circle or chamber consisting of huge stones set up often in prehistoric times for religious or sepulchral purposes or as memorials of some important event. See Cromlech. Dolmonieu (dol-o-myca) Dec-

See Cromitch, **Dolmonieu** (dol-o-mycu), DÉODAT GUY SILVAIN TANCRLDE GRATET DE, a French geologist and min-cralogist, born in 1750 at Dolomicu (Isère). After some years of military service he devoted himself to geological researches. He accompanied the French ovnedition to Evout but was shinwrsched rescarches. He accompanied the French expedition to Egypt, but was shipwrecked on his return off the coast of Taranto. and imprisoned and harshly treated by the Neapolitan government. He died in 1801. Among his works are Voyagas aux Iles de Lipari, etc., (1783) : Sur le Tremblement de Terre de la ("ala-bre (1784) ; Philosophic minéralogique (1802).

(1802). Dolomite (dol'u-mit), a mineral, also called magnesian limestone. It is composed of carbonate of calcium and carbonate of magnesium, and varies from gray or yellowish white to yellow-ish brown. It abounds in the Apennines. Tyrol, Switzerland, Tuscany, North America, England, etc. A variety called *bitterspar*, and sometimes *rhombapar*, is found in crystals having the form of a rhomboid; color grayish, yellowish, or reddish brown, easily scratched with the knife, and semitransparent. A second variety is denominated *pearlspar*, which has crystals of curvilinear faces and a pearly luster. Dolomite Mountains Dolowyrr

Dolomite Mountains, Dolowitz group of European mountains belonging partly to Tyrel, partly to North Italy. having the Piave and Rienz on the east and north; the Adige and Elisack on the west. They are named from the preva-lence of the mineral dolomite, and present **Dollond** dollard), John an English west. They are named from the preva-bled in 18.00. **Dollond** dollard), John an English west. They are named from the preva-torn in (700) dollard in 170). The devoted most interesting and picturesque scenery, its attention to the improvement of re- the peaks being endlessly varied in form, fracting the devoted in The highest summit is the Marmolata constructing of endlesses in which the (10.972 ft.); other peaks are the Strapiss, changibility of the rays of light was the Cimon della Pala, the Langkofel, etc. constructed. Subsequent members of the online, astronomy, etc.

#### Dom

Domenichino

the poles; they are gregarious, and swim with extraordinary velocity. The com-mon dolphin (D, dclphis) measures from 6 to 10 feet in length, has a long, sharp snout with numerous nearly conical teeth in both jaws; its flesh is coarse, rank and disagreeable, but is used by the Lap-landers as food. It lives on fish, mollusca, etc., and often may be seen in numbers



Common Dolphin (Delphinus Delphis).

Common Dolplin (Delphinus Delphis), round shouls of herring. The animal has to come to the surface at short intervals to breathe. The blowhole is of a semilunar form, with a kind of valvular apparatus, and opens on the vertex, nearly over the eyes. The structure of the car renders the sense of hearing very acute, and the animal is observed to be attracted by regular or harmonious sunds. One or two young are produced by the female, who suckles and watches them with great care and anxiety, long after they have acquired considerable size. Compactness and strength are the characteristics of the genus.—The name is also commonly but improperly given to a fish. Coruphana hipparis, a member of the mackerel family, the beauty of whose colors when dying has been much celebrated by poets. They abound within the tropics, are about 4 or 5 feet long, every swift in swimming, and are used as food, though said sometimes to be poison-ous. ous.

ous. **Dom**, a Portuguese title corresponding **Dom**, with the Spanish Don. **Domain** (domán), same as Demeano (which see); also applied es-pecially to crown lands or government lands. Right of eminent domain, the dominion of the sovereign power over all the property within the state, by which it is entitled to appropriate any part neces-sary to the public good, compensation being given. sary to the being given.

being given. **Dombrowski** (dom-brov'skē), JAN ( $67 \times 190$  feet). The figures represent HENRYK, a Polish gen- the internal diameter and height in eral. distinguished in the wars of English feet. The finest dome in America Napoleon, was born in 1755. He sup- is that of the Capitol at Washington, ported the rising of the Poles under built of cast-iron. Kosciusko in 1794. In 1796 he entered **Domenichino** (d &-m e n-i-k & n d), the service of France, and at the head **Domenichino** (d &-m e n-i-k & n d). the service of France, and at the head an Italian painter of great eminence, of

in Italy in 1706-1801. He took a dis-tinguished part in the invasion of Russia in 1812, and also in the campaign of 1813. After Napoleon's abdication he returned to Poland and the year follow-ing was made a Polish senator by Alex-ander I. He died in 1818. **Dome** (dom), a vaulted roof of spheri-cal or other curvature, covering a building or part of it, and forming a common feature in Byzantine and also in Renaissance architecture. Cupola is also used as a synonym, or is applied to the interior. (See Cupola.) Most modern domes are semielliptical in vertical sec-tion, and are constructed of timber; but the ancient domes were nearly hemi-spherical and constructed of stone. Of domes the finest, without any comparison, ancient or modern, is that of the Rotunda or Pantheon at Rome (14224 feet internal diameter and 143 feet internal height).



Section of Dome of San Pietro in Montorio, Rome at end of Fifteenth Century.

Rome at end of Filteenth Cantury. erected under Augustus, and still perfect. Among others the most noteworthy ar-St. Sophia at (Constantinople (104  $\times$  201) feet), the cathedral of Santa Maria del Fiore at Florence (139  $\times$  310 feet), St. Peter's at Rome (139  $\times$  330 feet), St. Peter's at Rome (139  $\times$  330 feet), St. Paul's London (112  $\times$  215 feet), the Hotel des Invalides (80  $\times$  173 feet), and the church of St. Geneviève at Paris (67  $\times$  190 feet). The figures represent the internal diameter and height in English feet. The finest dome in America is that of the Capitol at Washington, built of cast-iron. Domeniching (d 6-m e n-jek e' n d).

## Domesday Book

the Lombard school, born at Bologna in 1581 or 1582. He studied under Annibal Carracci, and afterwards went to Rome, where he became painter to Pope Gregory XV. Among his best works are the Communion of St. Jerome in the Vatican Museum, the History of Apollo, the Martyrdom of St. Agnes and the Triumph of David. He died at Naples in 1641.

**Domesday Book** (or DOOMSDAY), a book containing a survey of all the lands in England, com-piled in the reign and by the order of William the Conqueror. The survey was made by commissioners, who collected the information in each district from a made by commissioners, who confected the information in each district from a sworn jury consisting of sheriffs, lords of manors, presbyters, bailiffs, villeins—all the classes, in short, interested in the matter. The extent, tenure, value and proprietorship of the land in each dis-trict, the state of culture, and in some cases the number of tenants, villeins, serfs, etc., were the matters chiefly record-ed. The survey was completed within a year. Northumberland, Durham, Cum-berland and Westmoreland were not in-cluded in the survey, probably for the reason that William's authority was not then (1086) settled in those parts. The Domesday Book consists of two volumes, one folio and one quarto. It has been twice republished, the last time (1861-(is), in perfect facsimiles of the original **Domestic Animals**, such as are by man, and are to some extent in a tame state: as the dos, cat. ox sheen

As a general rule the old domicile, and especially the domicile of origin, con-tinues till a new one has been acquired. **Dominant** (dom'i-nant), in music, the fifth tone of the diatonic scale, and which assumes the character of a keynote itself when there is a modulation into the first sharp remove. Thus, G is the dominant of the scale of C, and D the dominant of the scale of G.—Dominant chord, in music, that which is formed by grouping three tones, rising gradually by intervals of a third from the dominant or fifth tone of the scale. It occurs almost invariably im-mediately before the tonic chord which closes the perfect cadence. **Domingo** (dö-mön'gö), SAN, capital

William the Conqueror. The survey was made by commissioners, who collected the information in each district from a sworn jury consisting of sherifs, lords of manors, presbyters, bailiffs, villeins, and the classes, in short, interested in the matter. The extent, tenure, value and proprietorship of the land in each district, the state of culture, and in some cases the number of tenants, villeins, easier the tenant completed within a prentand. During (domingo) (a Sax, capital Commingo (domingo), Sax, capital completed within a prentand and Westmoreland, burtham, ('um berland and Westmoreland, burtham, ('um berland, and two the order of the Orden of

# **Dominical Letter**

north to south, and 12 miles in breadth north to south, and 12 miles in breauth east to west area, 291 square miles. It is rugged and mountainous, but it con-tains many fertile valleys and is well watered. The shores are but little in-dented, and are entirely without harbors; but on the west side there are several good anchorages and bays. The princi-rel accounts consist of sugar molesce. good anchorages and bays. The princi-pal exports consist of sugar, molasses, cocoa and lime-juice. The imports and exports amount each to about \$250,000 annually. Dominica was ceded by France to Great Britain in 1763. Roseau is the capital. Pop. 28,894, largely negroes and including about 300 descendants of the aboriginal Cariba. Dominical Letter (do-min'i-kal).

and including about 300 descendants of the aboriginal Caribs. **Dominical Letter** (d o-m i n'i-k al), in chronology, properly called Sunday letter, one of the seven letters of the alphabet, A B C D E F G, used in almanacs, ephemerides, etc., to mark the first seven days of the year and all consecutive sets of seven days to the end of the year, so that the letter for Sunday will always be the same. If the number of days in the year were divisible by seven without remainder, then the year would constantly begin with the same day of the week; but as it is the year begins and ends on the same day, and therefore the next year will begin on the day following, and on leap years two days following, so that the same series is not repeated till after four times seven, or twenty-eight years. **Dominican Republic** (d o-m i n' i-kan), or SAN DOMINGO, a republic (d o f layti

They spread rapidly not only in Europe, but in Asia, Africa and America. In England there were fifty-eight Dominican houses at the dissolution of the monas-teries, and the Blackfriars locality in London took its name from oue of their establishments. They produced some famous scholars, such as Albertus Mag-nus and Thomas Aquinas, and became formidable as managers of the Inquisi-tion, which was committed exclusively to



Dominican or Black Friar.

Dominican or Black Friar. them in Spain, Portugal and Italy. In 1425 they obtained permission to receive donations, and ceased to belong to the mendicant orders, paying more attention to polemics and theological science. With the Franciscans, their great rivals, they divided the honor of ruling in church and state till the sixteenth century, when the Jeauits gradually superseded them in the schools and courts. They obtained new importance in 1620 by being appointed to the censorship of books for the church. Among notable Dominicans we may men-tion Navonarola. Las Casas and Lacor-daire. There are establishments of the Dominicans in England, Ireland and the United States. Dominium (do-min'i-um), a term in Dominican Republic ( $d^{3-m}$  in' i donations, and ceased to belong to the feastern portion of the island of Hayti; the Franciscans, their great rivals, they area, about 18,000 square miles. It is divided the honor of ruling in church and fertile and exports mahogany, sugar, to bacco, cocoa, etc., but its resources are Jesuits gradually superseded them in the schools and courts. They obtained new belonged to Spain, and is the oldest co-importance in 1020 by being appointed to the censorship of books for the church. Among notable Dominicans we may men-ican the government is in the hands of the negroes. Capital, San Domingo. Pop. estimated at 500,000. See Hayti. Dominicans (do-min'i-kanz), called also predicatores, derived their name from their founder. St. Domini (do-min'i-um), a term in presching friars (predicatores), derived ter, which, reaching no lower than the fasting being enjoined upon them: and the principal object of their institution was to preach against heretics. Their is a manguerade dress worn by greater in the wint and scapular with a large black mantle, the with wide sleeves and a masking and hence they have been commonly hood. The name is also given to a half-known as Black Friars. They were mask formerly worn on the face by almost from the first a mendicant order.

#### Domino

#### Dominoes

Dominoes, a game played with small, ivery, about twice as long as they are broad. They are marked with spots varying in number. When one player leads by laying down a domino, the next another which has the same number of spots on one of its sides. Thus, if the first player lays down 6-4, the second may ceply with 4-2, or 6-3, etc.; in the former case he must turn in the 4, plac-ing it beside the 4 of the first domino, so that the numbers remaining out will be 6-2; in the latter case he must turn in the 6 to the 6 in like manner. leaving 4-3, to which his opponent must now re-spond. The player who cannot follow with loses his turn, and the object of the game is to get rid of all the dominoes in hand, or to hold fewer spots than your opponent when the game is exhausted by neither being able to play. **Domitian** (Idemiside and) or in full Astys Argustrys, Roman emperor, son of vespasian, and brother of Titus, was born in AD, 51, and in S1 succeeded to the moderation and justice, but soon re-turned to the cruelty and excesses for which his youth had been notorious. He was as vain as he was cruel, and after



of Novara, in the center of a plain on the great Simplon road. Pop. about 3000.

of Novara, in the center of a plain on the great Simplon road. Pop. about 3000. Domremy la Pucelle (dop-ré-mi la pit-sāl), the birthplace of Joan of Arc, a small French village, department of the Vosges, seven miles N, of Neufchâteau. The house is still shown there in which the her-ine was born, and in the neighborhood is the monument erected to her memory. Don, or DooNE (do'na; ancient Tunais), a river of Russia, which issues from Lake Ivan-Ozero, in the govern-ment of Tula; and flows S. E. to within 37 miles of the Volga, where it turns abruptly S. w. for 236 miles, and falls into the Sea of Azof; whole course nearly 1300 miles. The chief tributaries are: right bank, the Donetz and Voronej; left, the Khoper and Manitsch. Although not admitting vessels of much draught, the Don carries a large traffic, especially during the spring floods, and a canal connects it with the Volga system of navigation. It has also very exten-sive and productive fisheries. Don (don), a river of Scotland, County Aberdeen, rising near the Banff-thire border. It flows tortuously E through the whole breadth of Aberdeen-shire, and falls into the North Sea a titte to the north of Aberdeen, after a total course of S2 miles. Its salmon fisheries are of considerable value.— Also, a river of Yorkshire, England, which rises near Cheshire, and joins the Ouse after a course of about 70 miles. It is navigable for small craft to Shef-field. Don (Latin, dominus, a lord or master),

It is field.

It is navigable for small craft to Suef-field. Don (Latin, dominus, a lord or master), a Spanish title of honor, originally given only to the highest nobility, after-wards to all the nobles, and finally used indiscriminately as a title of court-sy. It corresponds with the Portuguese Don. During the Spanish occupation it was introduced and became naturalized in some parts of Italy, and was particularly applied to the priests. Donaldson (don'ald-sun), JOHN WH-LIAM, an English scholar, tank, an English scholar, the was accusted great numbers of the chief citizens, and assumed the titles of Lord and G d. The established the most, stringent haws against high treason, which enabled almost anything to be construed into this crime. At length a construct, in which his wife Domitia took part, was formed against him, and he was accusted in his bedroom, in A.b. 19. Domo town of North Italy, province

# Donatello

scope to the Cratylus. Among his other writings are grammars of the Hebrew. Greek and Latin languages. He died in 1861.

**Donatello** (don-a-tel'lo, properly Don-ato di Betto Bardi), one of the revivers of the art of sculpture in Italy, was born at Florence between 1382 and 1387. His first great works in marble were statues of St. Peter and St. Mark, in the church of St. Michael in his native town, in an outside niche of which is also his famous statue of St. George. Along with his friend Bru-nelleschi he made a journey to Rome to study its art treasures. On his re-turn he executed for his patrons, Cosmo and Lorenzo de' Medici, a marble mon-ument to their father and mother, which is of high merit. Statues of St. John, of Judith, David and St. Cecilia are among his leading works. He died at Florence in 1466. Florence in 1466.

Donatio mortis causa, is a gift of property made in prospect of the death of the donur unit of the death of donor and consummated by that the event.

Donati's Comet (dö-na'ti), so called from the Italian astronomer Donati, who first observed it in June, 1858. Next to the comet of 1811 it is the most brilliant that ap-peared during the century. It was near-est the earth on October 10, 1858.

est the earth on October 10, 1858. Donatists (don'a-tists), one of a body of African schismatics of the fourth contury, so named from their founder Donatus, Bishop of Casa Nigra in Numidia, who taught that though Christ was of the same substance with the Father, yet that he was less than the Father; that the Catholic Church was not infallible, but had erred in his time and become practically extinct, and that he was to be the restorer of it. All join-ing the sect required to be rebaptized, baptism by the impure church being invalid.

which is a basin of clear sparkling water that is asserted to be the true source of the Danube. Pop. 5000. **Donauwörth** (don'ou-veurt), a town of Bavaria, at the con-fluence of the Wörnitz and Danube. It was formerly a free imperial town, and was stormed by the Swedes under Gus-tavus Adolphus in the Thirty Years' war, 1652. Pop. 5,000. **Donax** (don'aks: Arundo donaz), a species of grass or reed in

1652. Pop. 5,000, **Donax** (don'aks; Arundo donaz), a species of grass or reed in-habiting the southern parts of Europe; it grows to a great height and is used for fishing-rods, etc. **Don Benito** (don bā-né'tō), a town of Spain, province of Badajoz. It has manufactures of woolens, and a trade in cattle, grain, etc. Pop.

and a trade in cattle, grain, etc. 16,565. Pop.

16,585. 16,585. 16,585. 16,585. 16,585. 16,585. 10 Doncaster (don'kas-ter), a municipal borough and market town of England. West Rid'ng of Yorkshire, on the river Don, well tuilt, with straight broad streets. The parish church, with its tower 170 feet high. Christ Church, with its tower 170 feet high. Christ Church, the town hall and the theater are among the chief public buildings. It has manu factures of ropes, canvas, machinery, etc. It has been long celebrated for its annual races, now held in the middle of Sep-tember. Doncaster was originally a Ro-man station on the line of the old Ro-man Watling Street. Pop. (1911) 30,-520. 10 Dondrach Hack (don'dra')

**Dondrah Head** (don'dra), the south ern extremity of the island of Ceylon. It was the site during part of the seventh century of the Singh-alesse capital, numerous remains of which are still to be found.

Numda, who taught that though alese capital, numerous remains of which Christ was of the same substance with are still to be found.
 Christ was of the same substance with are still to be found.
 Christ was of the same substance with are still to be found.
 Donegal (don'e-gal), a maritime beating of Ulster, bounded N. and W. by the county of Ireland, province of Ulster, bounded N. and W. by the and become practically extinct, and that Atlantic Ocean: area. 1876 sq. miles, of the was to be the restorer of it. All join which about a fifth is under crops. The which about a bound a fifth is under crops. The which about a fifth is under crops. The coast is indented with numerous bays, baptism by the impure church being the most mountainous county in Ionatus man grammarian and commentator, born in A.D. 333. He was the preceptor of St. Jerome, wrote notes on lakes are small, but numerous and virgit and Terence, and a grammar of abounding in fish. The streams and preceptor of St. Jerome, wrote notes on lakes are small, but numerous and virgit and Terence, and a grammar of abounding in fish. The climate is moist, the subsol chiefly granite, mica slate and in the middle ages that 'Donat' became a common term for grammar or primer of instruction.
 Donaueschingen (do'nou-esh'ing-eu), a town of Baden. Germany, 29 miles east by south of Freiburg. It contains the Prince of the coast and islands. Grain, butter

Donegal

Donne and eggs are exported. The minerals Don Juan (Sp. pron.  $\lambda_{u-an'}$ ), the are not wrought to advantage. Pop. which seems to have had some historical 173,722.—DONEGAL, the county town, is basis in the history of a member of the a small scaport on the bay of the same noble family of Tenorio at Seville. Ac-Pop. 1214. Donetz (do'nets), a Russian river of Kurst.

name, at the mouth of the river Esk. Pop. 1214,
Donetz (do'nets), a Russian river which rises in the government of Kursk, flows south and east, forming the boundary of soveral governments, and, after a course of 400 miles, joins the Don. Dongola (don'go'la), a district of Upper Nubia, extending on both sides of the Nile from about lat. 18° to lat. 20° N. It formerly belonged to Egypt and was the seat of a pasha. but after the evacuation of all the country south of Wady Halfa in 1886, by the Egyptian government, it was left in an unsettled state. Its chief products are dates, cotton, indigo and maize. The population is a mixture of Arabs and indigenous Nubians. Its chief town is Dongola or El Ordeh, on the left bank of the Nile. Pop. 10,000. Doni (do'ni), a clumsy kind of boat used on the coast of Coromandel and Ceylon: sometimes decked and oc-casionally furnished with an outrigger. The donis are about 70 feet long. 20 feet broad, and 12 feet deep, have one mast and a lugsail and are navigated in fine weather only. Donizetii (don-e-zet'tē, or do-nid-zet'-

weather only.

weather only. **Donizetti** (don-e-zet'të, or do-nid-zet'-te), GAETANO, an Italian composer, born in 1798, at Bergamo. He studied music at Bologna under the distinguished Abbé Mattei. His first opera, Enrico di Borgogna, was repre-sented at Venice in 1818. In 1822 his Zoraide di Granata gained him the honor of being crowned on the Capitol. In 1830 appeared his Anna Bolena, which first, along with Lucrezia Borgia and Lucia di Lammermoor-the latter his masterpiece -acquired for him an European frame. Lammermoor—the latter his masterpiece —acquired for him an European frame. In 1835 Donizetti was appointed profes-sor of counterpoint at the Royal College of Naples, but removed in 1840 to Paris, bringing with him three new operas, *Les Marturs, La Farorita* and *La Fille du Regiment*, of which the last two are among his most popular productions. Of his other operas none except *Linda di* (1843) achieved any special triumph, though he wrote in all sixty-four operas. He died in 1848.

**Donjon** (don'in), the principal tower innermost court or buildy, which the garrison could make the last line of defense. Its lower part was commonly used as a prison. See Castle,



Tower of London, time of Henry VIII. A, The Donjon.

Tower of London, time of Henry VIII. A, The Donjon. cording to the legend, Don Juan was a libertine of the most reckless character. An attempt to seduce the daughter of a governor of Seville brought the indignant father and the profligate don into deadly conflict, in which the former was alain. I on Juan afterwards, in a spirit of wild mockery, goes to the grave of the murdered man and invites the statue of him erected there to a revel. To the terror of Don Juan the 'stony guest' actually appears at the table to bear him away to the infernal world. The legend has furnished the subject for many dramas and operas. The most famous of the latter is Moxart's Don Giorsani, which has made the story familiar to everybody. Among the former are Bus-lador de Nerilla, by Tellez, Don Juan of Byron bears no relation to the old story but in name and in the libertine character of the hero. Donkey ass: so called from das, in relation to its color. Donkey-engine (dong'ki), a small engine used in vari-

relation to its color. **Donkey-engine** (dong'ki), a small cngine used in vari-ous operations where no great power is required. Thus, a donkey-engine is often stationed on the deck of a ship to work a crane for loading and unloading. **Donne** (don). JOHN, a celebrated poet and divine, was the son of a merchant of London, in which city he was horn in 1573. He studied both at Oxford and Cambridge. In his nine-teenth year he abjured the Catbolic re-ligion, and became secretary to the Lord-chancellor Ellesmere, but finally lost his

#### Donnelly

office by a clandestine marriage with his patron's niece. The young couple were in consequence reduced to great distress, till his father-in-law relented so far as to give his daughter a moderate portion. By the desire of King James Donne took orders, and, settling in Lon-don, was made preacher of Lincoln's Inn. In 1621 he was appointed Dean of St. Paul's. He was chosen prodocutor to the convocation in 1623-24. He died in 1631, and was interred in St. Paul's. As a poet, and the precursor of Cowley, Donne may be deemed the founder of what Dr. Johnson calls L.e metaphysical class of poets. Abounding in thought, this school generally neglected versifica-tion, and that of Dr. Donne was pecul-iarly harsh and unmusical. His style is guaint and pedantic; but he displays sound learning, deep thinking and orig-inality of manner. Besides the works already mentioned, he wrote Letters, Sermons, Essays on Divinity and other pieces.

pieces. Donnelly (don'el-i), IGNATIUS, au-thor; born at Philadelphia, Pennsylvania, in 1831. For many years he resided in Minnesota, several times representing that State in Congress. He works, and claimed to have found a cryptogram in Shakespere's plays which, in substance, transferred their authorship to Francis Bacon. He died in 1901. Donnybrook (don'i-brök), a village of Ireland, now mostly in the parliamentary borough of Dublin, its famous fair, which seldon passed off uithout rist and bloodshed, was abol-ished in 1855. Donora (do-nô'ra), a borough of

ished in 1855. **Donora** (do-nô'ra), a borough of Washington Co., Pennsylva-nia, on the Monongahela River, 35 miles at. of Pittsburgh, in a conl and agricul-tural district. It has wire, nail and fence mills, etc. Pop. (1910) 8174; (1920) .....s.ri .....s. ete. 14,131. **D**r

Don Quixote (kwiks'öt: Spanish pron., kö-hö'tä), the title of a famous romance by Cervantes.

**Doomster** (döm'ster), a name formerly given in Notland to the public executioner. See Deemster. **Doon** (dön), a river in Ayrshire, Scot-land, which, after a course of 30 miles, fails into the Firth of Clyde. It is celebrated in the paems of Burns. **Dor** (dor), DORM, the black beetle, *Geotrûpes stercorarius*, one of the most common of betles, of a stout form, less than 1 inch long, black with metallic reflections. It may often be heard dron-ing through the air towards the close of the summer twilight. See Dung Beetle. Beetle.

Beetie. **Dora** (dö'ra), the name of two rivers in Northern Italy, both tributa-ries of the Po. The D. BALTEA rises on the southern slopes of the Mont Blanc group and falls, after a course of about 100 miles, into the Po below Chivasso; the D. RIPARIA, about 75 miles long, rises in the Cottian Alps, and joins the Po below Turin.

Dora D'Istria. See Ghika, Helona.

Dora D'Istria. See Ghika, Helena. Jora D'Istria. See Ghika, Helena. The set of Bagdad. It has a considerable the commerce, this being aided by a canal her which connects the Dorak with the Karun. a Pop. 6000. Ch. Doran (do'ran), JOHN, an English hip 1878. He began writing when a mere youth, and produced a great number of thy books, among them being Lives of the magnetic of England of the House of Hen-of History of Court Fools, The Princes of Walcs, Their Majestics' Servants (a of history of the English stage from Better-val- ton to Kean). A Lady of the Last in Dorcas Society (do'kas, from the Dorcas Society (do'kas, from the

Dorcas Society (dor'kas, from the Dorcas Society (dor'kas, from the Dorcas mentioned in Acts, ix), an association generally composed of ladies for supplying clothes to the poor. Frequently the members of the society meet at stated times and work in common. Partial payment is gener-ally required from all recipients except the very poor. Dorchestar (dor'ches-ter), a munici-

title of a famous romance by Cervantes. See Cervantes. Doo edd, GEORGE THOMAS, an English INC BOLLEY - In common. Partial payment is gener-in common. Partial payment is gener-pal borough of England, torical engraver to William IV, and sub-sequently to Queen Victoria. He was s. w. of London. There are large cavalry elected an associate of the Royal Acad-emy in 1856, and next year academi-cian. Doom Palm (döm). See Doum Palm, Doomsday Book (döms'day). See mains are still to be found in the vicinity. Domesday Book. It was a parliamentary borough till

1

#### Dorchester

#### Dordogne

1585, when it was merged in the county. Pop. (1911) 9842. **Dordogne** (dor'don), a department of France, which includes the greater part of the ancient province of Périgord, and small portions of Lim-ousin, Angoumois and Saintonge. Area. 5500 square miles, of which about a third is fit for the plow. The chief minerals are iron, which is abundant, slate, lime-stone, marble and other stone. Mining, iron manufacture, etc., are carried on to a considerable extent, and there are a number of vineyards. The climate is mild but somewhat changeable. Pop. (1906) 447,052.—The river Doznocy, the principal river of the department, rises on the banks of the Fuy-de-Sancy, flows w. s. w. and, after a course of 2200 miles, unites with the Garonne in form-ing the Gironde. ing the Gironde.

Dordrecht (dor'dreht). See Dort.

**Dorutecht** (dor dreht). See Dort. **Doré** (dö-rä), PAUL GUSTAVE, a pro-lific French d raftsman and painter, born at Strasbourg, January 6, 1833. He studied at Paris, contributing, when only sixteen years of age, comic sketches to the Journal pour Rire. He distinguished himself greatly as an illus-trator of books. His illustrations of Rabclais, of Perrault's Tales, Sue's Wandering Jew, Dante's Dirina Com-media, and Cervantes' Don Quirote dis-played great fertility of invention, and the fine fantasy of his landscapes and the dine fantasy of his landscapes and the fine fantasy of his landscapes and the dramatic effectiveness of his groups acquired for him an European reputa-tion. His illustrations of the Bible, of Ariosto's Orlando Furioso, and Milton's Paradise Lost are also of high excellence. As a painter he has grandenr of concep-tion and a hold accuration of the Among As a painter he has grandeur of concep-tion and a bold, expressive style. Among his chief works are Christ learning the Pratorium, Paolo and Francesca di Rimini, The Flight into Egypt, Mont Blanc, etc. In later years Doré also won fame as a sculptor. He died in 1883 1883.

Doree (do're), a fish. See Dory.

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Doree (dö're), a fish. See Dory. Borema (do-rö'ma), a genus of plants, nat. order Unbellifere, D. ammonideum, a Persian species, yields the annonideum, a Persian species, yields the annonideum of commerce, a milky juice that exudes from punctures on the stem and dries in little 'tears.' Doria (dô'reà), one of the most pow-distinguished about the beginning of the tweafth century, and shared with three tweafth century, and shared with three tweafth century, and shared with three to the republic. Among the older heroes of this family are OBERTO DORIA.







