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THE

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L to Lamellibranchia

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INITIALS USED IN VOLUME XVI. TO IDENTIFY INDIVIDUAL CONTRIBUTORS,[1] WITH THE HEADINGS OF THE ARTICLES IN THIS VOLUME SO SIGNED.

A. C. G.	Albert Charles Lewis Gotthilf Gunther, M.A., M.D., Ph.D., F.R.S. Keeper of Zoological Department, British Museum, 1875-1895. Gold Medalist, Royal Society, 1878. Author of *Catalogues of Colubrine Snakes, Batrachia salientia, and Fishes in the British Museum*; &c.	**Mackerel** (*in part*).
A. C. S.	Algernon Charles Swinburne. See the biographical article: Swinburne, Algernon Charles.	**Marlowe, Christopher**; **Mary, Queen of Scots**.
A. E. J.	Arthur Ernest Jolliffe, M.A. Fellow, Tutor and Mathematical Lecturer, Corpus Christi College, Oxford. Senior Mathematical Scholar, 1892.	**Maxima**; **Minima**.
A. F. P.	Albert Frederick Pollard, M.A., F.R.Hist.Soc. Professor of English History in University of London. Fellow of All Souls' College, Oxford. Author of *England under the Protector Somerset*; *Henry VIII.*; &c.	**Macalpine, John**.
A. G. D.	Arthur George Doughty, C.M.G., M.A., Litt.D., F.R.Hist.S. Dominion Archivist of Canada. Member of the Geographical Board of Canada. Author of *The Cradle of New France*; &c. Joint-editor of *Documents relating to the Constitutional History of Canada*.	**McGee, T. A.**
A. Ha.	Adolf Harnack. See the biographical article: Harnack, Adolf.	**Manichaeism** (*in part*); **Marcion**.
A. H. F.	Rev. Andrew Hollingsworth Frost, M.A. Principal of Church Missionary College, Islington, 1870-1874.	**Magic Square**.
A. H. S.	Rev. Archibald Henry Sayce, LL.D., Litt.D. See the biographical article: Sayce, Archibald Henry.	**Lycia**; **Lydia**.
A. H.-S.	Sir A. Houtum-Schindler, C.I.E. General in the Persian Army. Author of *Eastern Persian Irak*.	**Mazandaran**.
A. J. G.*	Arthur James Grant, M.A. King's College, Cambridge. Professor of History in the University of Leeds.	**Louis XIII., XIV. and XV. of France**.
A. J. H.	Alfred J. Hipkins, F.S.A. (1826-1903). Formerly Member of Council and Hon. Curator of the Royal College of Music, London. Member of Committee of the Inventions and Music Exhibition, 1885; of the Vienna Exhibition,	**Lute** (*in part*); **Lyre** (*in part*).

	1892; and of the Paris Exhibition, 1900. Author of *Musical Instruments*; &c.	
A. M. C.	Agnes Mary Clerke. See the biographical article: Clerke, A. M.	**Maskelyne**; **Mayer, Johann Tobias**.
A. M. Cl.	Agnes Muriel Clay (Mrs Edward Wilde). Formerly Resident Tutor of Lady Margaret Hall, Oxford. Joint-editor of *Sources of Roman History, 133-79 B.C.*	**Magistrate**.
A. M. F.	Rev. Andrew Martin Fairbairn, M.A., D.D., LL.D. See the biographical article: Fairbairn, A. M.	**Martineau, James**.
A. N.	Alfred Newton, F.R.S. See the biographical article: Newton, Alfred.	**Lory**; **Love-Bird**; **Lyre-Bird**; **Macaw**; **Magpie**; **Mallemuck**; **Manakin**; **Manucode**; **Martin**.
A. N. W.	Alfred North Whitehead, M.A., D.Sc, F.R.S. Fellow and Senior Lecturer in Mathematics, Trinity College, Cambridge. Author of *A Treatise on Universal Algebra*.	**Mathematics**.
A. R. C.	Alexander Ross Clarke, C.B., F.R.S. Colonel R.E. Royal Medal of Royal Society, 1887. In charge of Trigonometrical Operations of the Ordnance Survey, 1854-1881.	**Map**: *Projections* (*in part*).
A. R. L.*	Arthur Robert Ling, F.I.C. Editor of the *Journal of the Institute of Brewing*. Lecturer on Brewing and Malting at the Sir John Cass Institute, London. Vice-President of the Society of Chemical Industry.	**Malt**.
A. Sl.	Arthur Shadwell, M.A., M.D., LL.D. Member of Council of Epidemiological Society. Author of *The London Water-Supply*; *Industrial Efficiency*; *Drink, Temperance and Legislation*.	**Malaria** (*in part*); **Massage**.
A. Sy.	Arthur Symons. See the biographical article: Symons, Arthur.	**Mallarmé, Stéphane**.
A. Wa.	Arthur Waugh, M.A. Managing Director of Chapman & Hall, Ltd., Publishers. Formerly Literary Adviser to Kegan Paul & Co. Author of *Alfred Lord Tennyson*; *Legends of the Wheel*; *Robert Browning* in "Westminster Biographies." Editor of Johnson's *Lives of the Poets*.	**Lytton, 1st Baron**.
A. W. H.*	Arthur William Holland. Formerly Scholar of St John's College, Oxford. Bacon Scholar of Gray's Inn, 1900.	**Louis I., II., III. and IV.**: *Roman Emperors*; **Louis the German**; **Louis II. and III. of France**; **Louis the Child**; **Magna Carta**; **Maximilian I.**: *Roman Emperor*.
A. W. Hu.	Rev. Arthur Wollaston Hutton, M.A. Rector of Bow Church, London. Formerly Librarian of the National Liberal Club. Author of *Life of Cardinal Manning*; &c.	**Manning, Cardinal**.
A. W. M.	Arthur William Moore, C.V.O., M.A. (1853-1909). Trinity College, Cambridge. Formerly Speaker of the House of Keys, and J.P. for the Isle of Man. Author of *A History of the Isle of Man*; &c.	**Man, Isle of**.
A. W. R.	Alexander Wood Renton, M.A., LL.B. Puisne Judge of the Supreme Court of Ceylon. Editor of *Encyclopaedia of the Laws of England*.	**Maxims, Legal**.
B. W.	Benjamin Williamson, M.A., D.Sc., F.R.S. Professor of Natural Philosophy, and Vice-Provost of Trinity College, Dublin. Author of *Differential Calculus*; &c.	**Maclaurin, Colin**.
C. A. M. F.	Charles Augustus Maude Fennell, M.A., Litt.D. Formerly Fellow of Jesus College, Cambridge. Editor of Pindar's *Odes and Fragments*, and of the *Stanford Dictionary of Anglicized Words and Phrases*.	**Magic Square** (*in part*).
C. B. P.	Catherine Beatrice Phillips, B.A. (Mrs W. Alison Phillips). Associate of Bedford College, London.	**Louis XVIII. of France**; **Marie Antoinette**.
C. Ch.	Charles Chree, M.A., LL.D., D.Sc., F.R.S. Superintendent, Kew Observatory. Formerly Fellow of King's College, Cambridge. President of Physical Society of London. Watt Medallist, Institute of Civil Engineers, 1905.	**Magnetism, Terrestrial**.
C. F. A.	Charles Francis Atkinson. Formerly Scholar of Queen's College, Oxford. Captain, 1st City of London (Royal Fusiliers). Author of *The Wilderness and Cold Harbour*.	**Machine-Gun**.
C. F. Cl.	Charles Frederick Close, C.M.G. Lieutenant-Colonel, R.E. Head of the Geographical Section, British General Staff. Formerly British Representative on the Nyasa-Tanganyika Boundary Commission. Author of *Text-Book of Topographical Surveying*; &c.	**Map**: *Projections* (*in part*).

C. G. Cr.	Charles George Crump, M.A. Balliol College, Oxford. Clerk in H.M. Public Record Office, London. Editor of *Landor's Works*; &c.	**Manor**: *in England*.
C. H. Ha.	Carlton Huntley Hayes, A.M., Ph.D. Assistant Professor of History in Columbia University, New York City. Member of the American Historical Association.	**Matilda, Countess of Tuscany**; **Lucius**.
C. L. K.	Charles Lethbridge Kingsford, M.A., F.R.Hist.S., F.S.A. Assistant Secretary to the Board of Education. Author of *Life of Henry V.* Editor of *Chronicles of London* and Stow's *Survey of London*.	**Lovell, Viscount**; **Margaret of Anjou**.
C. M.	Carl Theodor Mirbt, D.Th. Professor of Church History in the University of Marburg. Author of *Publizistik im Zeitalter Gregor VII.*; *Quellen zur Geschichte des Papstthums*; &c.	**Lyons, Councils of**; **Marburg, Colloquy of**.
C. Pf.	Christian Pfister, D. ès L. Professor at the Sorbonne, Paris. Chevalier of the Legion of Honour. Author of *Études sur le règne de Robert le Pieux*.	**Mayor of the Palace**.
C. R. B.	Charles Raymond Beazley, M.A., D.Litt. Professor of Modern History in the University of Birmingham. Formerly Fellow of Merton College, Oxford. University Lecturer in the History of Geography. Author of *Henry the Navigator*; *The Dawn of Modern Geography*; &c.	**Magellan**; **Marignolli** (*in part*).
D. B. Ma.	Duncan Black Macdonald, M.A., D.D. Professor of Semitic Languages, Hartford Theological Seminary, U.S.A. Author of *Development of Muslim Theology, Jurisprudence and Constitutional Theory*; *Religious Attitude and Life in Islam*; &c.	**Mahommedan Institutions**; **Mahommedan Law**; **Malik Ibn Anas**.
D. F. T.	Donald Francis Tovey. Author of *Essays in Musical Analysis*, comprising *The Classical Concerto, The Goldberg Variations* and analyses of many other classical works.	**Madrigal** (*in music*); **Mass** (*in music*).
D. G. H.	David George Hogarth, M.A. Fellow of Magdalen College, Oxford. Fellow of the British Academy. Keeper of the Ashmolean Museum, Oxford. Excavated at Paphos, 1888; Naucratis, 1899 and 1903; Ephesus, 1904-1905; Assiut, 1906-1907; Director, British School at Athens, 1897-1900; Director, Cretan Exploration Fund, 1899.	**Magnesia**; **Malatia**; **Manisa**; **Marash**; **Maronites**.
D. H.	David Hannay. Formerly British Vice-Consul at Barcelona. Author of *Short History of the Royal Navy*; *Life of Emilio Castelar*; &c.	**Marryat, Frederick**; **Mast**; **Mathews, Thomas**.
D. Mn.	Rev. Dugald Macfadyen, M.A. Minister of South Grove Congregational Church, Highgate. Author of *Constructive Congregational Ideals*; &c.	**Mackennal, Alexander**.
D. M. W.	Sir Donald Mackenzie Wallace, K.C.I.E., K.C.V.O. Extra Groom of the Bedchamber to H.M. King George V. Director of the Foreign Department of The Times, 1891-1899. Member of Institut de Droit International and Officier de l'Instruction Publique of France. Joint-editor of New Volumes (10th ed.) of the *Encyclopaedia Britannica*. Author of *Russia*; *Egypt and the Egyptian Question*; *The Web of Empire*; &c.	**Loris-Melikov**.
D. S. M.*	David Samuel Margoliouth, M.A., D.Litt. Laudian Professor of Arabic, Oxford. Fellow of New College. Author of *Arabic Papyri of the Bodleian Library*; *Mohammed and the Rise of Islam*; *Cairo, Jerusalem and Damascus*.	**Mahomet**.
E. A. J.	E. Alfred Jones. Author of *Old English Gold Plate*; *Old Church Plate of the Isle of Man*; *Old Silver Sacramental Vessels of Foreign Protestant Churches in England*; *Illustrated Catalogue of Leopold de Rothschild's Collection of Old Plate*; *A Private Catalogue of the Royal Plate at Windsor Castle*; &c.	**Mace**.
E. Bn.	Eduard Bernstein. Member of the German Reichstag, 1902-1906. Author of *Zur Theorie und Geschichte des Socialismus*; &c.	**Marx**.
E. C. B.	Rt. Rev. Edward Cuthbert Butler, O.S.B., D.Litt. (Dubl.). Abbot of Downside Abbey, Bath. Author of the *Lausiac History of Palladius*, in "Cambridge Texts and Studies."	**Mabillon**; **Maurists**; **Mechitharists**.
E. G.	Edmund Gosse, LL.D., D.C.L. See the biographical article: Gosse, Edmund.	**Loti, Pierre**; **Lyrical Poetry**; **Macaronics**; **Madrigal** (*in verse*); **Maeterlinck**.
E. Gr.	Ernest Arthur Gardner, M.A. See the biographical article: Gardner, Percy.	**Mantinela** (*in part*); **Marathon** (*in part*).
E. G. R.	Ernest George Ravenstein, M.A., Ph.D. Professor of Geography at Bedford College, London, 1882-1883. Formerly in Topographical (now Intelligence) Department of the War Office. Author of *The Russians on the Amur*; *A Systematic Atlas*; &c.	**Map** (*in part*).
E. H. M.	Ellis Hovell Minns, M.A. University Lecturer in Palaeography, Cambridge. Lecturer and Assistant Librarian at Pembroke College, Cambridge. Formerly Fellow of Pembroke College.	**Massagetae**.

E. L. W.	Sir Edward Leader Williams (1828-1910). Formerly Vice-President, Institute of Civil Engineers. Consulting Engineer, Manchester Ship Canal. Chief Engineer of the Manchester Ship Canal during its construction. Author of papers printed in *Proceedings of Institute of Civil Engineers*.	**Manchester Ship Canal**.
E. M. T.	Sir Edward Maunde Thompson, G.C.B., I.S.O., D.C.L., Litt.D., LL.D. Director and Principal Librarian, British Museum, 1898-1909. Sandars Reader in Bibliography, Cambridge, 1895-1896. Hon. Fellow of University College, Oxford. Correspondent of the Institute of France and of the Royal Prussian Academy of Sciences. Author of *Handbook of Greek and Latin Palaeography*. Editor of *Chronicon Angliae*.	**Manuscript**.
E. O.*	Edmund Owen, M.B., F.R.C.S., LL.D., D.Sc. Consulting Surgeon to St Mary's Hospital, London, and to the Children's Hospital, Great Ormond Street, London. Chevalier of the Legion of Honour. Late Examiner in Surgery at the Universities of Cambridge, London and Durham. Author of *A Manual of Anatomy for Senior Students*.	**Lung**; **Lupus**; **Mammary Gland**: *Diseases*.
E. Pr.	Edgar Prestage. Special Lecturer in Portuguese Literature in the University of Manchester. Examiner in Portuguese in the Universities of London, Manchester, &c. Commendador, Portuguese Order of S. Thiago. Corresponding Member of Lisbon Royal Academy of Sciences, Lisbon Geographical Society, &c. Editor of *Letters of a Portuguese Nun*; *Azurara's Chronicle of Guinea*; &c.	**Macedo**; **Manuel de Mello**.
E. R. B.	Edwyn Robert Bevan, M.A. Formerly Scholar of New College, Oxford. Author of *House of Seleucus*; *Jerusalem under the High Priests*.	**Macedonian Empire**; **Lysimachus**.
E. Tn.	Rev. Ethelred Luke Taunton (d. 1907). Author of *The English Black Monks of St Benedict*; *History of the Jesuits in England*.	**Loyola**.
E. W. B. N.	Edward Williams Byron Nicholson, M.A. Librarian of the Bodleian Library, Oxford. Principal Librarian and Superintendent of the London Institution, 1873-1882. Author of *Keltic Researches*.	**Mandevllle, Sir John**.
F. A. P.	Frederick Apthorp Paley, LL.D. See the biographical article: Paley, F. A.	**Lucian**.
F. C. C.	Frederic Cornwallis Conybeare, M.A., D.Th. (Giessen). Fellow of the British Academy. Formerly Fellow of University College, Oxford. Author of *The Ancient Armenian Texts of Aristotle*; *Myth, Magic and Morals*; &c.	**Manichaeism** (*in part*).
F. G. M. B.	Frederick George Meeson Beck, M.A. Fellow and Lecturer in Classics, Clare College, Cambridge.	**Lothian**.
F. G. P.	Frederick Gymer Parsons, F.R.C.S., F.Z.S., F.R. Anthrop. Inst. Vice-President, Anatomical Society of Great Britain and Ireland. Lecturer on Anatomy at St Thomas's Hospital and the London School of Medicine for Women. Formerly Hunterian Professor at the Royal College of Surgeons.	**Lymphatic System** (*in part*); **Mammary Gland**: *Anatomy*.
F. J. H.	Francis John Haverfield, M.A., LL.D. Camden Professor of Ancient History at Oxford University. Fellow of Brasenose College, Oxford. Fellow of the British Academy. Member of the German Imperial Archaeological Institute. Formerly Senior Censor, Student, Tutor and Librarian of Christ Church, Oxford. Ford's Lecturer, 1906. Author of Monographs on Roman History, &c.	**Lugudunum**; **Mancunium**.
F. J. S.	Frederick John Snell, M.A. Balliol College, Oxford. Author of *The Age of Chaucer*; &c.	**Lydgate**.
F. K.	Fernand Khnopff. See the biographical article: Khnopff, Fernand E. J. M.	**Madou**.
F. Ll. G.	Francis Llewellyn Griffith, M.A., Ph.D., F.S.A. Reader in Egyptology, Oxford University. Editor of the Archaeological Survey and Archaeological Reports of the Egypt Exploration Fund. Fellow of Imperial German Archaeological Institute.	**Luxor**; **Manetho**.
F. Po.	Sir Frederick Pollock, Bart., LL.D., D.C.L. See the article: Pollock (family).	**Maine, Sir Henry**.
F. R. C.	Frank R. Cana. Author of *South Africa from the Great Trek to the Union*.	**Mandingo**.
F. W. R.*	Frederick William Rudler, I.S.O., F.G.S. Curator and Librarian at the Museum of Practical Geology, London, 1879-1902. President of the Geologists' Association, 1887-1889.	**Magnetite**; **Malachite**.
G. A. Gr.	George Abraham Grierson, C.I.E., Ph.D., D.Litt. (Dublin). Indian Civil Service, 1873-1903. In charge of Linguistic Survey of India, 1898-1902. Gold Medallist, Royal Asiatic Society, 1909. Vice-President of the Royal Asiatic Society. Formerly Fellow of Calcutta University. Author of *The Languages of India*; &c.	**Marathi**.
G. Br.	Rev. George Bryce, M.A., D.D., LL.D., F.R.S. (Canada). President of the Royal Society of Canada. Head of Faculty of Science and Lecturer in Biology and Geology in Manitoba University, 1891-1904. Author of *Manitoba*; *A Short History of the Canadian People*; &c.	**Manitoba** (*in part*).
G. B. S.	George Barnett Smith.	

	Author of *William I. and the German Empire*; *Life of Queen Victoria*; &c.	**Macmahon**.
G. C. L.	George Collins Levey, C.M.G. Member of Board of Advice to Agent-General of Victoria. Formerly Editor and Proprietor of the *Melbourne Herald*. Secretary to Commissioners for Victoria at the Exhibitions in London, Paris, Vienna, Philadelphia and Melbourne.	**McCulloch, Sir James**.
G. G.*	George Gladden. Associate Editor of *Current Literature*, 1904-1905. Editor of Biography, *New International Encyclopaedia*, 1901-1904, 1906-1907, and *New International Year Book*, 1907-1908; &c.	**Martha's Vineyard**.
G. G. S.	George Gregory Smith, M.A. Professor of English Literature, Queen's University of Belfast. Author of *The Days of James IV.*; *The Transition Period*; *Specimens of Middle Scots*; &c.	**Lyndsay, Sir David**.
G. H. C.	George Herbert Carpenter, B.Sc. Professor of Zoology in the Royal College of Science, Dublin. Author of *Insects: their Structure and Life*.	**May-Fly** (*in part*).
G. R. P.	George Robert Parkin, LL.D., D.C.L. See the biographical article: Parkin, George Robert.	**Macdonald, Sir John Alexander**.
G. Sa.	George Saintsbury, LL.D., D.C.L. See the biographical article: Saintsbury, George E. B.	**Maistre, Joseph de**; **Malherbe, Franois de**; **Marguerite de Valois**; **Marivaux, Pierre**; **Marot, Clement**.
G. W. T.	Rev. Griffithes Wheeler Thatcher, M.A., B.D. Warden of Camden College, Sydney, N.S.W. Formerly Tutor in Hebrew and Old Testament History at Mansfield College, Oxford.	**Luqmān**; **Mahommedan Religion**; **Mandaeans** (*in part*); **Maqqarī**; **Maqrīzī**; **Mas'udi**.
H. B. Wo.	Horace Bolingbroke Woodward, F.R.S., F.G.S. Formerly Assistant Director, Geological Survey of England and Wales. Wollaston Medallist, Geological Society. Author of *The History of the Geological Society of London*; &c.	**Lyell, Sir Charles**.
H. Cl.	Sir Hugh Charles Clifford, K.C.M.G. Colonial Secretary, Ceylon. Fellow of the Royal Colonial Institute. Formerly Resident, Pahang. Colonial Secretary, Trinidad and Tobago, 1903-1907. Author of *Studies in Brown Humanity*; *Further India*; &c. Joint-author of *A Dictionary of the Malay Language*.	**Malacca**; **Malay Peninsula**; **Malays**; **Malay States**: *Federated*.
H. C. H.	Rev. Horace Carter Hovey, A.M., D.D. Fellow of the American Association for the Advancement of Science, Geological Society of America, National Geographic Society and Société de Spéléologie (France). Author of *Celebrated American Caverns*; *Handbook of Mammoth Cave of Kentucky*; &c.	**Luray Cavern**; **Mammoth Cave**.
H. De.	Rev. Hippolyte Delehaye S.J. S.J. Bollandist. Joint-editor of the *Acta Sanctorum*.	**Lucia, St**; **Marcellinus, St**; **Margaret, St**; **Martyrology**.
H. E. S.*	Horace Elisha Scudder (d. 1902). Formerly Editor of the *Atlantic Monthly*. Author of *Life of James Russell Lowell*; *History of the United States*; &c.	**Lowell, James Russell**.
H. Fr.	Henri Frantz. Art Critic, *Gazette des Beaux-Arts* (Paris).	**Manet**.
H. Le.	Herbert Martin James Loewe, M.A. Queen's College, Cambridge. Curator of Oriental Literature, University Library, Cambridge. Formerly Chief English Master at the Schools of the Alliance at Cairo and Abyassiyyeh, Egypt. Author of *Kitab el Ansab of Samani*; &c.	**Maimonides**.
H. Lb.	Horace Lamb, M.A., LL.D., D.Sc, F.R.S. Professor of Mathematics, University of Manchester. Formerly Fellow and Assistant Tutor of Trinity College, Cambridge. Member of Council of Royal Society, 1894-1896. Royal Medallist, 1902. President of London Mathematical Society, 1902-1904. Author of *Hydrodynamics*; &c.	**Mechanics**: *Theoretical*.
H. L. H.	Harriet L. Hennessy, M.D. (Brux.), L.R.C.S.I., L.R.C.P.I.	**Malaria** (*in part*).
H. M. S.	Henry Morse Stephens, M.A., Litt.D. Balliol College, Oxford. Professor of History in the University of California. Author of *History of the French Revolution*; &c.	**Maintenon, Madame de**; **Mazarin**.
H. S.*	Sir Herbert Stephen, Bart., M.A., LL.M. Trinity College, Cambridge. Barrister-at-Law. Clerk of Assize for the Northern Circuit.	**Lytton, 1st Earl of**.
H. St.	Henry Sturt, M.A. Author of *Idola Theatri*; *The Idea of a Free Church*; *Personal Idealism*; &c.	**Lotze** (*in part*).
H. W. C. D.	Henry William Carless Davis, M.A. Fellow and Tutor of Balliol College, Oxford. Fellow of All Souls' College, Oxford, 1895-1902. Author of *England under the Normans*	**Mandeville, Geoffrey de**; **Marsh, Adam**; **Matilda, Queen**;

	and Angevins; *Charlemagne*.	**Matthew of Paris**.
H. W. R.*	Rev. Henry Wheeler Robinson, M.A. Professor of Church History in Rawdon College, Leeds. Senior Kennicott Scholar, Oxford, 1901. Author of *Hebrew Psychology in Relation to Pauline Anthropology* (in *Mansfield College Essays*); &c.	**Malachi** (*in part*).
H. Y.	Sir Henry Yule, K.C.S.I., C.B. See the biographical article: Yule, Sir Henry.	**Mandeville, Sir John** (*in part*); **Marignolli** (*in part*).
I. A.	Israel Abrahams, M.A. Reader in Talmudic and Rabbinic Literature in the University of Cambridge. Formerly President, Jewish Historical Society of England. Author of *A Short History of Jewish Literature*; *Jewish Life in the Middle Ages*; *Judaism*; &c.	**Luria**; **Luzzatto, Moses Hayim**; **Luzzatto, Samuel David**; **Mapu**; **Marano**.
J. A. C.	Sir Joseph Archer Crowe, K.C.M.G. See the biographical article: Crowe, Sir J. A.	**Mabuse**.
J. A. S.	John Addington Symonds. See the biographical article: Symonds, J. A.	**Machiavelli**; **Manutius**.
J. A. V.*	John Augustus Voelcker, M.A., Ph.D., F.I.C., F.L.S. Consulting Chemist to the Royal Agricultural Society of England, &c. Author of *The Woburn Experiments*; &c.	**Manures**.
J. Bt.	James Bartlett. Lecturer on Construction, Architecture, Sanitation, Quantities, &c., at King's College, London. Member of Society of Architects. Member of Institute of Junior Engineers.	**Masonry**.
J. C. R. C.	Sir John Charles Ready Colomb, K.C.M.G. See the biographical article: Colomb, P. H.	**Marines**.
J. D. B.	James David Bourchier, M.A., F.R.G.S. King's College. Cambridge. Correspondent of The Times in South-Eastern Europe. Commander of the Orders of Prince Danilo of Montenegro and of the Saviour of Greece, and Officer of the Order of St Alexander of Bulgaria.	**Macedonia**.
J. F.-K.	James Fitzmaurice-Kelly, Litt.D., F.R.Hist.S. Gilmour Professor of Spanish Language and Literature, Liverpool University. Norman McColl Lecturer, Cambridge University. Fellow of the British Academy. Member of the Council of the Hispanic Society of America. Knight Commander of the Order of Alphonso XII. Author of *A History of Spanish Literature*.	**Lull, Raimon**; **Maupassant**.
J. Ga.	James Gairdner, C.B., LL.D. See the biographical article: Gairdner, James.	**Mary I., Queen**.
J. G. Sc.	Sir James George Scott, K.C.I.E. Superintendent and Political Officer, Southern Shan States. Author of *Burma*; *The Upper Burma Gazetteer*.	**Mandalay**.
J. Hn.	Jüstüs Hashagen, Ph.D. Privatdozent in Medieval and Modern History, University of Bonn. Author of *Das Rheinland unter die franzosische Herrschaft*.	**Louis I. and II. of Bavaria**.
J. H. F.	John Henry Freese, M.A. Formerly Fellow of St John's College, Cambridge.	**Lycaon**.
J. H. R.	John Horace Round, M.A., LL.D. (Edin.). Author of *Feudal England*; *Studies in Peerage and Family History*; *Peerage and Pedigree*.	**Lord Great Chamberlain**; **Mar, Earldom of**; **Marquess**.
J. Hl. R.	John Holland Rose, M.A., Litt.D. Christ's College, Cambridge. Lecturer on Modern History to the Cambridge University Local Lectures Syndicate. Author of *Life of Napoleon I.*; *Napoleonic Studies*; *The Development of the European Nations*; *The Life of Pitt*; chapters in the *Cambridge Modern History*.	**Lowe, Sir Hudson**; **Maret**.
J. I.	Jules Isaac. Professor of History at the Lycée of Lyons.	**Louis XII. of France**.
J. J. T.	Sir Joseph John Thomson, D.Sc., LL.D., Ph.D., F.R.S. Cavendish Professor of Experimental Physics and Fellow of Trinity College, Cambridge. President of the British Association, 1909-1910. Author of *A Treatise on the Motion of Vortex Rings*; *Application of Dynamics to Physics and Chemistry*; *Recent Researches in Electricity and Magnetism*; &c.	**Magneto-Optics**; **Matter**.
J. L. W.	Jessie Laidlay Weston. Author of *Arthurian Romances unrepresented in Malory*.	**Malory, Sir Thomas**; **Map, Walter**.
J. M. Gr.	James Moncrieff Grierson, C.B., C.M.G., C.V.O. Major-General, R.A. Commanding 1st Division Aldershot Command. Director of Military Operations at Headquarters, 1904-1906. Served through South African War, 1900-1901. *Author of Staff Duties in the Field*; &c.	**Manœvres, Military**.
J. M. M.	John Malcolm Mitchell. Sometime Scholar of Queen's College, Oxford. Lecturer in Classics, East London College (University of London). Joint-editor of Grote's *History of Greece*.	**Mandeville, Bernard de**; **Marcus Aurelius Antoninus**.
J. P. P.	John Percival Postgate, M.A., Litt.D. Professor of Latin in the University of Liverpool. Fellow of Trinity College, Cambridge. Fellow of the British Academy. Editor of the	**Lucan** (*in part*).

	Classical Quarterly. Editor-in-chief of the *Corpus Poetarum Latinorum*; &c.	
Jno. S.	Sir John Scott, K.C.M.G., D.C.L. (1841-1904). Deputy Judge Advocate-General to the Forces, 1898-1904. Judicial Adviser to the Khedive of Egypt, 1890-1898. Hon. Fellow of Pembroke College, Oxford.	**Martial Law**.
J. Si.*	Rev. James Sibree, F.R.G.S. Principal Emeritus, United College (L.M.S. and F.F.M.A.), Antanànarivo, Madagascar. Membre de l'Académie Malgache. Author of *Madagascar and its People*; *Madagascar before the Conquest*; *A Madagascar Bibliography*; &c.	**Madagascar**; **Mauritius**.
J. S. Bl.	John Sutherland Black, M.A., LL.D. Assistant-editor of the 9th edition of the Encyclopaedia Britannica. Joint-editor of the *Encyclopaedia Biblica*.	**Mary: Mother of Jesus** (*in part*); **Mazzini**.
J. S. Co.	James Sutherland Cotton, M.A. Editor of the Imperial Gazetteer of India. Hon. Secretary of the Egyptian Exploration Fund. Formerly Fellow and Lecturer of Queen's College, Oxford. Author of *India*; &c.	**Mahrattas** (*in part*).
J. S. F.	John Smith Flett, D.Sc, F.G.S. Petrographer to the Geological Survey. Formerly Lecturer on Petrology in Edinburgh University. Neill Medallist of the Royal Society of Edinburgh. Bigsby Medallist of the Geological Society of London.	**Marble**; **Marl**.
J. T. Be.	John Thomas Bealby. Joint-author of Stanford's *Europe*. Formerly Editor of the *Scottish Geographical Magazine*. Translator of Sven Hedin's *Through Asia, Central Asia and Tibet*; &c.	**Maritime Province** (*in part*).
J. T. C.	Joseph Thomas Cunningham, M.A., F.Z.S. Lecturer on Zoology at the South-Western Polytechnic, London. Formerly Fellow of University College, Oxford. Assistant Professor of Natural History in the University of Edinburgh and Naturalist to the Marine Biological Association.	**Mackerel** (*in part*).
J. T. M.	John Theodore Merz, LL.D., Ph.D., D.C.L. Chairman of the Newcastle-upon-Tyne Electric Supply Co., Ltd. Author of *History of European Thought in the XIXth Century*; &c.	**Lotze** (*in part*).
J. T. S.*	James Thomson Shotwell, Ph.D. Professor of History in Columbia University, New York City.	**Louis VI., VII., IX., X. and XI. of France.**
J. V.*	Jules Viard. Archivist at the National Archives, Paris. Officer of Public Instruction, France. Author of *La France sous Philippe VI de Valois*; &c.	**Lore, Ambroise de**; **Louvet, Jean**; **Marcel, Étienne**.
J. V. B.	James Vernon Bartlet, M.A., D.D. (St Andrews). Professor of Church History, Mansfield College, Oxford. Author of *The Apostolic Age*; &c.	**Mark, St** (*in part*); **Matthew, St**; **Luke, St**.
K. G. J.	Kingsley Garland Jayne. Sometime Scholar of Wadham College, Oxford. Matthew Arnold Prizeman, 1903. Author of *Vasco da Gama and his Successors*.	**Malay Archipelago**.
K. K.	Konrad Kessler, Ph.D. Formerly Professor of Semitic Languages at the University of Greifswald.	**Mandaeans** (*in part).*
K. L.	Rev. Kirsopp Lake, M.A. Lincoln College, Oxford. Professor of Early Christian Literature and New Testament Exegesis in the University of Leiden. Author of *The Text of the New Testament*; *The Historical Evidence for the Resurrection of Jesus Christ*; &c.	**Mary, Mother of Jesus** (*in part*).
K. S.	Kathleen Schlesinger. Editor of Portfolio of Musical Archaeology. Author of *The Instruments of the Orchestra*.	**Lute** (*in part*); **Lyre** (*in part*); **Mandoline**.
L. J. S.	Leonard James Spencer, M.A., F.G.S. Assistant, Department of Mineralogy, Natural History Museum, South Kensington. Formerly Scholar of Sidney Sussex College, Cambridge, and Harkness Scholar. Editor of the *Mineralogical Magazine*.	**Manganite**; **Marcasite**.
L. V.*	Luigi Villari. Italian Foreign Office (Emigration Dept.). Formerly Newspaper Correspondent in East of Europe. Author of *Italian Life in Town and Country*; &c.	**Mazzini**: *Bibliography*.
L. W. V-H.	L. W. Vernon-Harcourt (d. 1909). Barrister-at-Law. Author of *His Grace the Steward and the Trial of Peers*.	**Lord High Steward**.
M. A. W.	Mary A. Ward (Mrs Humphry Ward). See the biographical article: Ward, Mary Augusta.	**Lyly**.
M. Br.	Margaret Bryant.	**Louis VIII. and XVII. of France**.
M. Ja.	Morris Jastrow, Jr., Ph.D. Professor of Semitic Languages, University of Pennsylvania. Author of *Religion of the Babylonians and Assyrians*; &c.	**Marduk**.
M. N. T.	Marcus Niebuhr Tod, M.A. Fellow and Tutor of Oriel College, Oxford. University Lecturer in	**Lycurgus**: *Spartan Lawgiver*;

	Epigraphy. Joint-author of *Catalogue of the Sparta Museum*.	**Lysander**.
M. O. B. C.	Maximilian Otto Bismarck Caspari, M.A. (Oxon.). Reader in Ancient History at London University. Lecturer in Greek at Birmingham University, 1905-1908.	**Mantineia** (*in part*); **Manuel I., Comnenus**; **Marathon** (*in part*).
M. P.	Mark Pattison, LL.D. See the biographical article: Pattison, Mark.	**Macaulay**.
N. D. M.	Newton Dennison Mereness, A.M., Ph.D. Author of *Maryland as a Proprietary Province*.	**Maryland**.
N. V.	Joseph Marie Noel Valois. Member of Académie des Inscriptions et Belles-Lettres, Paris. Honorary Archivist at the Archives Nationales. Formerly President of the Société de l'Histoire de France, and of the Société de l'École des Chartes.	**Marsilius of Padua**; **Martin I.-V.**: *Popes*.
N. W. T.	Northcote Whitridge Thomas, M.A. Government Anthropologist to Southern Nigeria. Corresponding Member of the Société d'Anthropologie de Paris. Author of *Thought Transference*; *Kinship and Marriage in Australia*; &c.	**Lycanthropy**; **Magic**.
O. R.	Osborne Reynolds, M.A., LL.D., F.R.S. M.Inst.C.E. Formerly Professor of Engineering, Victoria University, Manchester. Honorary Fellow of Queens' College, Cambridge.	**Lubrication**.
P. A. A.	Philip A. Ashworth, M.A., Doc. Juris. New College, Oxford. Barrister-at-Law.	**Lübeck** (*in part*).
P. A. K.	Prince Peter Alexeivitch Kropotkin. See the biographical article: Kropotkin, Prince, P. A.	**Maritime Province** (*in part*).
P. G.	Percy Gardner, M.A., Litt.D., LL.D. See the biographical article: Gardner, Percy.	**Lysippus**.
P. Gi.	Peter Giles, M.A., LL.D., Litt.D. Fellow and Classical Lecturer of Emmanuel College, Cambridge, and University Reader in Comparative Philology. Formerly Secretary of the Cambridge Philological Society.	**M**.
P. G. T.	Peter Guthrie Tait, LL.D. See the biographical article: Tait, Peter Guthrie.	**Maxwell, James Clerk**.
P. Vi.	Paul Vinogradoff, D.C.L., LL.D. See the biographical article: Vinogradoff, Paul.	**Manor** (*in part*).
R. A.*	Robert Anchel. Archivist to the Department de l'Eure.	**Louis XVI.**; **Marat**.
R. B. McK.	Ronald Brunlees McKerrow, M.A. Trinity College, Cambridge. Editor of *The Works of Thomas Nashe*; &c.	**Marprelate Controversy**.
R. C. J.	Sir Richard Claverhouse Jebb, D.C.L., LL.D. See the biographical article: Jebb, Sir Richard Claverhouse.	**Lysias** (*in part*).
R. G.	Richard Garnett, LL.D., D.C.L. See the biographical article: Garnett, Richard.	**Lucan** (*in part*); **Max Müller**.
R. H. C.	Rev. Robert Henry Charles, M.A., D.Litt. Grinfield Lecturer on the Septuagint at Oxford, 1905-1907. Fellow of the British Academy. Professor of Biblical Greek at Trinity College, Dublin, 1898-1906. Hibbert Lecturer at Oxford, 1898; Jowett Lecturer, 1898-1899. Author of *Critical History of a Future Life*; &c.	**Manasses, Prayer of**.
R. J. M.	Ronald John McNeill, M.A. Christ Church, Oxford. Barrister-at-law. Formerly Editor of the *St James's Gazette*, London.	**Lundy, Robert**; **Macdonnell, Sorley Boy**; **McNeile, Hugh**; **Manchester, Earls and Dukes of**; **March, Earls of**; **Margaret, Queen of Scotland**; **Masham, Abigail**.
R. K. D.	Sir Robert Kennaway Douglas. Formerly Professor of Chinese, King's College, London. Keeper of Oriental Printed Books and MSS. at British Museum, 1892-1907. Member of the Chinese Consular Service, 1858-1865. Author of *The Language and Literature of China*; *China*; *Europe and the Far East*; &c.	**Manchuria**.
R. L.*	Richard Lydekker, F.R.S., F.G.S., F.Z.S. Member of the Staff of the Geological Survey of India, 1874-1882. Author of *Catalogues of Fossil Mammals, Reptiles and Birds in the British Museum*; *The Deer of all Lands*; *The Game Animals of Africa*; &c.	**Loris**; **Macaque**; **Machaerodus**; **Mammalia** (*in part*); **Mammoth** (*in part*); **Manati**; **Mandrill**; **Marmot**; **Marsupialia**; **Mastodon**.
R. M'L.	Robert M'Lachlan, F.R.S. Editor of the *Entomologists' Monthly Magazine*.	**May-Fly** (*in part*).
R. M. D.	Richard Mountford Deeley, M.Inst.CE., M.I.Mech.E., F.G.S. Late Locomotive Superintendent, Midland Railway. Joint-author of	**Lubricants**.

	Lubrication and Lubricants.	
R. N. B.	Robert Nisbet Bain (d. 1909). Assistant Librarian, British Museum, 1883-1909. Author of *Scandinavia, the Political History of Denmark, Norway and Sweden, 1513-1900*; *The First Romanovs, 1613 to 1725*; *Slavonic Europe, the Political History of Poland and Russia from 1469 to 1796*; &c.	**Louis I. and II. of Hungary**; **Malachowski**; **Margaret, Queen**; **Martinuzzi**; **Matthias I., Hunyadi**; **Matvyeev**; **Mazepa-Koledinsky**.
R. P.	Reinhold Pauli. See the biographical article: Pauli, Reinhold.	**Lübeck** (*in part*).
R. P. S.	R. Phené Spiers, F.S.A., F.R.I.B.A. Formerly Master of the Architectural School, Royal Academy, London. Past President of Architectural Association. Associate and Fellow of King's College, London. Corresponding Member of the Institute of France. Editor of Fergusson's *History of Architecture*. Author of *Architecture: East and West*; &c.	**Manor-House**.
R. Po.	René Poupardin, D. ès L. Secretary of the École des Chartes. Honorary Librarian at the Bibliothèque Nationale, Paris. Author of *Le Royaume de Provence sous les Carolingiens*; *Recueil des chartes de Saint-Germain*; &c.	**Lorraine**; **Louis IV. and V. of France**.
R. S. C.	Robert Seymour Conway, M.A., D.Litt. (Cantab.). Professor of Latin and Indo-European Philology in the University of Manchester. Formerly Professor of Latin in University College, Cardiff; and Fellow of Gonville and Caius College, Cambridge. Author of *The Italic Dialects*.	**Mamertini**; **Marrucini**; **Marsi**.
R. T.	Sir Richard Temple. See the biographical article: Temple, Sir Richard.	**Mahrattas** (*in part*).
R. We.	Richard Webster, A.M. (Princeton). Formerly Fellow in Classics, Princeton University. Editor of *The Elegies of Maximianus*; &c.	**Mather, Increase**; **Mather, Richard**.
S. A. C.	Stanley Arthur Cook, M.A. Lecturer in Hebrew and Syriac, and formerly Fellow, Gonville and Caius College, Cambridge. Editor for Palestine Exploration Fund. Examiner in Hebrew and Aramaic, London University, 1904-1908. Author of *Glossary of Aramaic Inscriptions*; *The Laws of Moses and the Code of Hammurabi*; *Critical Notes on Old Testament History*; *Religion of Ancient Palestine*; &c.	**Lot**; **Manasseh**.
S. Bi.	Shelford Bidwell, M.A., D.Sc., F.R.S. (1848-1909). Gonville and Caius College, Cambridge. Formerly President of the Physical Society and Member of Council of the Royal Society.	**Magnetism**.
S. C.	Sidney Colvin, LL.D. See the biographical article: Colvin, Sidney.	**Marcantonio**.
S. N.	Simon Newcomb, LL.D., D.Sc. See the biographical article: Newcomb, Simon.	**Mars**: *Planet*.
T. As.	Thomas Ashby, M.A., D.Litt., F.S.A. Director of the British School of Archaeology at Rome. Corresponding Member of the Imperial German Archaeological Institute. Formerly Scholar of Christ Church, Oxford; Craven Fellow, Oxford, 1897. Author of *The Classical Topography of the Roman Campagna*; &c.	**Lucania**; **Lucca**; **Lucena**; **Lucretilis, Mons**; **Lucus Feroniae**; **Luna**; **Magna Graecia**; **Manduria**; **Manfredonia**; **Marches, The**; **Marino**; **Marzabotto**.
T. Ba.	Sir Thomas Barclay. Member of the Institute of International Law. Member of the Supreme Council of the Congo Free State. Officer of the Legion of Honour. Author of *Problems of International Practice and Diplomacy*; &c. M.P. for Blackburn, 1910.	**Mare Clausum**.
T. F. C.	Theodore Freylinghuysen Collier, Ph.D. Assistant Professor of History, Williams College, Williamstown, Mass., U.S.A.	**Marcellus**.
T. G. Br.	Thomas Gregor Brodie, M.D., F.R.S. Professor of Physiology in the University of Toronto. Author of *Essentials of Experimental Physiology*.	**Lymph and Lymph Formation**.
T. H. H.*	Sir Thomas Hungerford Holdich, K.C.M.G., K.C.I.E., D.Sc. Superintendent, Frontier Surveys, India, 1892-1898. Gold Medallist, R.G.S., London, 1887. Author of *The Indian Borderland*; *The Countries of the King's Award*; *India*; *Tibet*.	**Makran**.
T. M. L.	Thomas Martin Lindsay, LL.D., D.D. Principal of the United Free Church College, Glasgow. Formerly Assistant to the Professor of Logic and Metaphysics in the University of Edinburgh. Author of *History of the Reformation*; *Life of Luther*; &c.	**Luther, Martin**; **Lutherans**.
T. R. R. S.	Thomas Roscoe Rede Stebbing, M.A., F.R.S., F.L.S., F.Z.S. Fellow of King's College, London. Hon. Fellow of Worcester College, Oxford. Zoological Secretary of Linnaean Society, 1903-1907.	**Malacostraca**.

	Author of *A History of Crustacea*; *The Naturalist of Cumbrae*; &c.	
T. Se.	Thomas Seccombe, M.A. Balliol College, Oxford. Lecturer in History, East London and Birkbeck Colleges, University of London. Stanhope Prizeman, Oxford, 1887. Assistant Editor of *Dictionary of National Biography*, 1891-1901. Author of *The Age of Johnson*; &c.	**Marlowe, Christopher** (*in part*); **Marston, Philip Bourke**.
T. W. R. D.	Thomas William Rhys Davids, M.A., Ph.D., LL.D. Professor of Comparative Religion in the University of Manchester. Professor of Pali and Buddhist Literature, University College, London, 1882-1904. President of the Pali Text Society. Fellow of the British Academy. Secretary and Librarian of Royal Asiatic Society, 1885-1902. Author of *Buddhism*; &c.	**Lumbinī**; **Mahāvamsa**; **Maitreÿa**.
V. H. S.	Rev. Vincent Henry Stanton, M.A., D.D. Ely Professor of Divinity in the University of Cambridge. Canon of Ely. Formerly Fellow, Dean, Tutor and Lecturer of Trinity College, Cambridge. Author of The *Jewish and the Christian Messiahs*; &c.	**Mark, Gospel of St**; **Matthew, Gospel of St**; **Luke, Gospel of St**.
W. A. B. C.	Rev. William Augustus Brevoort Coolidge, M.A., F.R.G.S. Fellow of Magdalen College, Oxford. Professor of English History, St David's College, Lampeter, 1880-1881. Author of *Guide to Switzerland*; *The Alps in Nature and in History*; &c. Editor of the *Alpine Journal*, 1880-1889.	**Lötschen Pass**; **Lucerne: Canton, Town, Lake of**; **Lugano, Lake of**; **Maggiore, Lago**.
W. A. G.	Walter Armstrong Graham. His Siamese Majesty's Resident Commissioner for the Siamese Malay State of Kelantan. Adviser to his Siamese Majesty's Minister for Lands and Agriculture. Author of *Kelantan, a Handbook*; &c.	**Malay States**: *Non-Federated*. **Malay States**: *Siamese*.
W. A. P.	Walter Alison Phillips, M.A. Formerly Exhibitioner of Merton College and Senior Scholar of St John's College, Oxford. Author of *Modern Europe*; &c.	**Louis Philippe**; **Mahmud II.**; **Mass**: *Church*.
W. D. L.	William Draper Lewis, LL.B., Ph.D. Dean of the Law School, University of Pennsylvania. Lecturer on Economics, Haverford College, Pennsylvania, 1890-1896. Editor of *Great American Lawyers*; &c.	**Marshall, John**.
W. E. A. A.	William Edmund Armytage Axon, LL.D. Formerly Deputy Chief Librarian of the Manchester Free Libraries. On Literary Staff of Manchester Guardian, 1874-1905. Member of the Gorsedd, with the bardic name of Manceinion. Author of *Annals of Manchester*; &c.	**Manchester**.
W. E. D.	William Ernest Dalby, M.A., M.Inst.C.E., M.I.M.E. Professor of Civil and Mechanical Engineering at the City and Guilds of London Institute Central Technical College, South Kensington. Formerly University Demonstrator in the Engineering Department, Cambridge. Author of *The Balancing of Engines*; *Valves and Valve-Gear Mechanism*; &c.	**Mechanics**: *Applied* (*in part*).
W. E. G. F.	William Edward Garrett Fisher, M.A. Author of *The Transvaal and the Boers*.	**Marbles**.
W. F.*	Rev. William Fairweather, M.A., D.D. Minister of Dunnikier United Free Church, Kirkcaldy, N.B. Author of *Maccabees* (Cambridge Bible for Schools); *The Background of the Gospels*; &c.	**Maccabees**; **Maccabees, Books of**.
W. Ho.	Wynnard Hooper, M.A. Clare College, Cambridge. Financial Editor of *The Times*, London.	**Market**.
W. H. F.	Sir William Henry Flower, F.R.S. See the biographical article: Flower, Sir W. H.	**Mammalia** (*in part*); **Mammoth** (*in part*); **Mandrill** (*in part*); **Marten**.
W. J. M. R.	William John Macquorn Rankine, LL.D. See the biographical article: Rankine, William John Macquorn.	**Mechanics**: *Applied* (*in part*).
W. L. C.*	William Lee Corbin, A.M. Associate Professor of English, Wells College, Aurora, New York.	**Mather, Cotton**.
W. L. F.	Walter Lynwood Fleming, A.M., Ph.D. Professor of History in Louisiana State University. Author of *Documentary History of Reconstruction*; &c.	**Lynch Law**; **McGillivray, Alexander**.
W. L. G.	William Lawson Grant, M.A. Professor at Queen's University, Kingston, Canada. Formerly Beit Lecturer in Colonial History at Oxford University. Editor of *Acts of the Privy Council*, ("Colonial" series); *Canadian Constitutional Development* (in collaboration).	**Mackenzie, William Lyon**; **Manitoba** (*in part*).
W. M. R.	William Michael Rossetti. See the biographical article: Rossetti, Dante G.	**Luini**; **Mantegna**; **Martini**; **Masaccio**; **Masolino da Panicale**.
W. M. Ra.	Sir William Mitchell Ramsay, LL.D., D.C.L. See the biographical article: Ramsay, Sir William Mitchell.	**Lycaonia**.
W. P. C.	William Prideaux Courtney, D.C.L. See the article: Courtney, L. H., Baron.	**Marlborough, 1st Duke of**.
W. R. S.	William Robertson Smith, LL.D. See the biographical article: Smith, William Robertson.	**Malachi** (*in part*); **Mecca**.

W. Wn.	William Watson, D.Sc, F.R.S. Assistant Professor of Physics, Royal College of Science, London. Vice-President of the Physical Society.	**Magnetograph**; **Magnetometer**.
W. W. F.*	William Warde Fowler, M.A. Fellow of Lincoln College, Oxford. Sub-Rector, 1881-1904. Gifford Lecturer, Edinburgh University, 1908. Author of *The City-State of the Greeks and Romans*; *The Roman Festivals of the Republican Period*; &c.	**Mars**: *Mythology*; **Mauretania**.
W. Y. S.	William Young Sellar, LL.D. See the biographical article: Sellar, William Young.	**Martial**; **Lucilius** (*in part*); **Lucretius**.

1 A complete list, showing all individual contributors, appears in the final volume.

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LORD CHAMBERLAIN, in England, an important officer of the king's household, to be distinguished from the lord great chamberlain (*q.v.*). He is the second dignitary of the court, and is always a member of the government of the day (before 1782 the office carried cabinet rank), a peer and a privy councillor. He carries a white staff, and wears a golden or jewelled key, typical of the key of the palace, which is supposed to be in his charge, as the ensigns of his office. He is responsible for the necessary arrangements connected with state ceremonies, such as coronations and royal marriages, christenings and funerals; he examines the claims of those who desire to be presented at court; all invitations are sent out in his name by command of the sovereign, and at drawing-rooms arid levees he stands next to the sovereign and announces the persons who are approaching the throne. It is also part of his duty to conduct the sovereign to and from his carriage.[1] The bedchamber, privy chamber and presence chamber, the wardrobe, the housekeeper's room, the guardroom and the chapels royal are in the lord chamberlain's department. He is regarded as chief officer of the royal household, and he has charge of a large number of appointments, such as those of the royal physicians, tradesmen and private attendants of the sovereign. All theatres in the cities of London and Westminster (except patent theatres), in certain of the London boroughs and in the towns of Windsor and Brighton, are licensed by him and he is also licenser of plays (see Theatre: *Law*; and Revels, Master of the). His salary is £2000 a year. 1

The vice-chamberlain of the household is the lord chamberlain's assistant and deputy. He also is one of the ministry, a white-staff officer and the bearer of a key; and he is generally a peer or the son of a peer as well as a privy councillor. He receives £700 a year. Next to the vice-chamberlain comes the groom of the stole, an office only in use during the reign of a king. He has the charge of the vestment called the stole worn by the sovereign on state occasions. In the lord chamberlain's department also are the master, assistant master, marshal of the ceremonies and deputy-marshal of the ceremonies, officers whose special function it is to enforce the observance of the *etiquette* of the court. The reception of foreign potentates and ambassadors is under their particular care, and they assist in the ordering of all entertainments and festivities at the palace.[2] The gentleman usher of the black rod—the black rod which he carries being the ensign of his office—is the principal usher of the court and kingdom. He is one of the original functionaries of the order of the Garter, and is in constant attendance on the House of Lords, from whom, either personally or by his deputy, the yeoman usher of the black rod, it is part of his duty to carry messages and summonses to the House of Commons. There are six lords and six grooms "in waiting" who attend on the sovereign throughout the year and whose terms of attendance are of a fortnight's or three weeks' duration at a time. Usually "extra" lords and grooms in waiting are nominated by the sovereign, who, however, are unpaid and have no regular duties. Among the serjeants-at-arms there are two to whom special duties are assigned: the one attending the speaker in the House of Commons, and the other attending the lord chancellor in the House of Lords, carrying their maces and executing their orders.[3] The comptroller and examiner of accounts, the paymaster of the household, the licenser of plays, the dean and subdean of the chapels royal, the clerk and deputy clerks of the closet, the groom of the robes, the pages of the backstairs, of the chamber and of the presence, the poet laureate, the royal physicians and surgeons, chaplains, painters and sculptors, librarians and musicians, &c., are all under the superintendence of the lord chamberlain of the household.[4]

The queen consort's household is also in the department of the lord chamberlain of the household. It comprises a lord chamberlain, a vice-chamberlain and treasurer, equerry and the various ladies of the royal household, a groom and a clerk of the robes. The ladies of the household are the mistress of the robes, the ladies of the bedchamber, the bedchamber women and the maids of honour. The mistress of the robes in some measure occupies the position of the groom of the stole.[5] She is the only lady of the court who comes into office and goes out with the administration. She is always a duchess, and attends the queen consort at all state ceremonies and entertainments, but is never in permanent residence at the palace.[6] The ladies of the bedchamber share the personal attendance on the queen consort throughout the year. Of these there are eight, always peeresses, and each is in waiting for a fortnight or three weeks at a time. But the women of the bedchamber, of whom there are also eight, appear only at court ceremonies and entertainments according to a roster annually issued under the authority of the lord chamberlain of the queen consort. They are usually the daughters of peers or the wives of the sons of peers, and 2

formerly, like the mistress of the robes and the ladies of the bedchamber, habitually assisted the queen at her daily toilette. But this has long ceased to be done by any of them. The eight maids of honour have the same terms of waiting as the ladies of the bedchamber. They are commonly if not always the daughters or granddaughters of peers, and when they have no superior title and precedence by birth are called "honourable" and placed next after the daughters of barons.

1 The lord chamberlain of the household at one time discharged some important political functions, which are described by Sir Harris Nicolas (*Proceedings of the Privy Council*, vol. vi., Preface, p. xxiii).

2 The office of master of the ceremonies was created by James I. The master of the ceremonies wears a medal attached to a gold chain round his neck, on one side being an emblem of peace with the motto "Beati pacifici," and on the other an emblem of war with the motto "Dieu et mon droit" (see *Finetti Philoxensis*, by Sir John Finett, master of the ceremonies to James I. and Charles I., 1656; and D'Israeli's *Curiosities of Literature*, 10th ed., p. 242 seq.).

3 See May, *Parliamentary Practice*, pp. 236, 244.

4 The offices of master of the great wardrobe and master of the jewel house in the lord chamberlain's department were abolished in 1782.

5 In the reign of Queen Anne, Sarah duchess of Marlborough from 1704, and Elizabeth duchess of Somerset from 1710, held the combined offices of mistress of the robes and groom of the stole.

6 Since the great "bedchamber question" of 1839 the settled practice has been for all the ladies of the court except the mistress of the robes to receive and continue in their appointments independently of the political connexions of their husbands, fathers and brothers (see Gladstone's *Gleanings of Past Years*, i. 40; and Torrens's *Memoirs of Lord Melbourne*, ii. 304).

LORD CHIEF JUSTICE, in England, the presiding judge of the king's bench division of the High Court of Justice, and in the absence of the lord chancellor, president of the High Court. He traces his descent from the justiciar of the Norman kings. This officer appears first as the lieutenant or deputy of the king, exercising all the functions of the regal office in the absence of the sovereign. "In this capacity William Fitz-Osbern, the steward of Normandy, and Odo of Bayeux, acted during the Conqueror's visit to the continent in 1067; they were left, according to William of Poitiers, the former to govern the north of England, the latter to hold rule in Kent, vice sua; Florence of Worcester describes them as "custodes Angliae," and Ordericus Vitalis gives to their office the name of "praefectura." It would seem most probable that William Fitz-Osbern at least was left in his character of steward, and that the Norman seneschalship was thus the origin of the English justiciarship" (Stubbs's *Constitutional History*, i. 346). The same authority observes that William of Warenne and Richard Clare (Bienfaite), who were left in charge of England in 1074, are named by a writer in the next generation "praecipui Angliae justitiarii"; but he considers the name to have not yet been definitely attached to any particular office, and that there is no evidence to show that officers appointed to this trust exercised any functions at all when the king was at home, or in his absence exercised supreme judicial authority to the exclusion of other high officers of the court. The office became permanent in the reign of William Rufus, and in the hands of Ranulf Flambard it became coextensive with the supreme powers of government. But it was not till the reign of Henry II. that the chief officer of the crown acquired the exclusive right to the title of *capitalis* or *totius Angliae justitiarius*. Stubbs considers that the English form of the office is to be accounted for by the king's desire to prevent the administration falling into the hands of an hereditary noble. The early justiciars were clerics, in whom the possession of power could not become hereditary. The justiciar continued to be the chief officer of state, next to the king, until the fall of Hubert de Burgh (in the reign of King John), described by Stubbs as the last of the great justiciars. Henceforward, according to Stubbs, the office may be said to have survived only in the judicial functions, which were merely part of the official character of the chief justiciar. He was at the head of the curia regis, which was separating itself into the three historical courts of common law about the time when the justiciarship was falling from the supreme place. The chancellor took the place of the justiciar in council, the treasurer in the exchequer, while the two offshoots from the curia regis, the common pleas and the exchequer, received chiefs of their own. The king's bench represented the original stock of the curia regis, and its chief justice the great justiciar. The justiciar may, therefore, be said to have become from a political a purely judicial officer. A similar development awaited his successful rival the chancellor. Before the Judicature Act the king's bench and the common pleas were each presided over by a lord chief justice, and the lord chief justice of the king's bench was nominal head of all the three courts, and held the title of lord chief justice of England. The titles of lord chief justice of the common pleas and lord chief baron were abolished by the Judicature Act 1873, and all the common law divisions of the High Court united into the king's bench division, the president of which is the lord chief justice of England.

The lord chief justice is, next to the lord chancellor, the highest judicial dignitary in the kingdom. He is an *ex-officio* judge of the court of appeal. He holds office during good behaviour, and can only be removed by the crown (by whom he is appointed) after a joint address of both houses of parliament. He is now the only judicial functionary privileged to wear the collar of SS. There has been much discussion as to the origin and history of this collar;[1] it was a badge or insignia attached to certain offices entitling the holders to wear it only so long as they held those offices. The collar of SS. was worn by the chiefs of the three courts previous to their amalgamation in 1873, and that now worn by the lord chief justice of England was provided by Sir A. Cockburn in 1859 and entailed by him on all holders of the office. The salary is £8000 a year.

In the United States the supreme court consists of a chief justice and eight associate justices, any six of whom make a quorum. The salary of the chief justice is $13,000 and that of the associates $12,500. The chief justice takes rank next after the president, and he administers the oath on the inauguration of a new president and vice-president. The principal or presiding judge in most of the state judicatures also takes the title of chief justice.

1 *Notes and Queries*, series 1, vol. ii.; series 4, vols. ii. ix. x.; series 6, vols. ii. iii.; Planché, *Dictionary of Costume*, p. 126; Foss, *Lives of the Judges*, vol. vii.; Dugdale, *Orig. Jud.* fol. 102.

LORD GREAT CHAMBERLAIN, in England, a functionary who must be carefully distinguished from the lord chamberlain; he is one of the great officers of state, whose office dates from Norman times; and the only one who still holds it under a creation of that period. As his name implies, he was specially connected by his duties with the king's chamber (*camera curie*); but this phrase was also used to denote the king's privy purse, and the chamberlain may be considered as originally the financial officer of the household. But as he was always a great baron, deputies performed his financial work, and his functions became, as they are now, mainly ceremonial, though the emblem of his office is still a key. The office had been held by Robert Malet, son of a leading companion of the Conqueror, but he was forfeited by Henry I., who, in 1133, gave

the great chamberlainship to Aubrey de Vere and his heirs. Aubrey's son was created earl of Oxford, and the earls held the office, with some intermission, till 1526, when the then earl left female heirs. His heir-male succeeded to the earldom, but the crown, as is now established, denied his right to the office, which was thenceforth held under grants for life till Queen Mary and Elizabeth admitted in error the right of the earls on the strength of their own allegation. So matters continued till 1626, when an earl died and again left an heir-male and an heir-female. After an historic contest the office was adjudged to the former, Lord Willoughby d'Eresby. No further question arose till 1779, when his heirs were two sisters. In 1781 the House of Lords decided that it belonged to them jointly, and that they could appoint a deputy, which they did. Under a family arrangement the heirs of the two sisters respectively appointed deputies in alternate reigns till the death of Queen Victoria, when Lord Ancaster, the heir of the elder, who was then in possession, claimed that he, as such, had sole right to the office. Lord Cholmondeley and Lord Carrington as coheirs of the younger sister, opposed his claim, and the crown also claimed for itself on the ground of the action taken by the king in 1526. After a long and historic contest, the House of Lords (1902) declined to re-open the question, and merely re-affirmed the decision of 1781, and the office, therefore, is now vested jointly in the three peers named and their heirs.

The lord great chamberlain has charge of the palace of Westminster, especially of the House of Lords, in which he has an office; and when the sovereign opens parliament in person he is responsible for the arrangements. At the opening or closing of the session of parliament by the sovereign in person he disposes of the sword of state to be carried by any peer he may select, and walks himself in the procession on the right of the sword of state, a little before it and next to the sovereign. He issues the tickets of admission on the same occasions. He assists at the introduction of all peers into the House of Lords on their creation, and at the homage of all bishops after their consecration. At coronations he emerges into special importance; he still asserts before the court of claims his archaic right to bring the king his "shirt, stockings and drawers" and to dress him on coronation day and to receive his ancient fees, which include the king's bed and "night robe." He also claims in error to serve the king with water before and after the banquet, which was the function of the "ewry," a distinct office held by the earls of Oxford. At the actual coronation ceremony he takes an active part in investing the king with the royal insignia.

See J. H. Round, "The Lord Great Chamberlain" (*Monthly Review*, June 1902) and "Notes on the Lord Great Chamberlain Case" (*Ancestor*, No. IV.).

(J. H. R.)

LORD HIGH CHANCELLOR, one of the great officers of state of the United Kingdom, and in England the highest judicial functionary. The history of the office and of the growth of the importance of the lord chancellor will be found under Chancellor. The lord chancellor is in official rank the highest civil subject in the land outside the royal family, and takes precedence immediately after the archbishop of Canterbury. His functions have sometimes been exercised by a lord keeper of the great seal (see Lord Keeper), the only real difference between the two offices being in the appointment of the keeper by mere delivery of the seal, while a lord chancellor receives letters patent along with it. He is by office a privy councillor, and it has long been the practice to make him a peer and also a cabinet minister. He is by prescription Speaker or prolocutor of the House of Lords, and as such he sits upon the woolsack, which is not strictly within the House. Unlike the Speaker of the House of Commons, the lord chancellor takes part in debates, speaking from his place in the House. He votes from the woolsack instead of going into the division lobby. The only function which he discharges as Speaker practically is putting the question; if two debaters rise together, he has no power to call upon one, nor can he rule upon points of order. Those taking part in debates address, not the lord chancellor, but the whole House, as "My Lords." The lord chancellor always belongs to a political party and is affected by its fluctuations. This has often been denounced as destructive of the independence and calm deliberativeness essential to the purity and efficiency of the bench. In defence, however, of the ministerial connexion of the chancellor, it has been said that, while the other judges should be permanent, the head of the law should stand or fall with the ministry, as the best means of securing his effective responsibility to parliament for the proper use of his extensive powers. The transference of the judicial business of the chancery court to the High Court of Justice removed many of the objections to the fluctuating character of the office. As a great officer of state, the lord chancellor acts for both England and Scotland, and in some respects for the United Kingdom, including Ireland (where, however, an Irish lord chancellor is at the head of the legal system). By Article XXIV. of the Act of Union (1705) one great seal was appointed to be kept for all public acts, and in this department the lord chancellor's authority extends to the whole of Britain, and thus the commissions of the peace for Scotland as well as England issue from him.[1] As an administrative officer, as a judge and as head of the law, he acts merely for England. His English ministerial functions are thus briefly described by Blackstone: "He became keeper of the king's conscience, visitor, in right of the king, of all hospitals and colleges of the king's foundation, and patron of all the king's livings under the value of twenty marks per annum in the king's books. He is the general guardian of all infants, idiots and lunatics, and has the general superintendence of all charitable uses in the kingdom." But these duties and jurisdiction by modern statutes have been distributed for the most part among other offices or committed to the judges of the High Court (see Charity and Charities; Infant; Insanity). Under the Judicature Act 1873 the lord chancellor is a member of the court of appeal, and, when he sits, its president, and he is also a judge of the High Court of Justice. He is named as president of the chancery division of the latter court. His judicial patronage is very extensive, and he is by usage the adviser of the crown in the appointment of judges[2] of the High Court. He presides over the hearing of appeals in the House of Lords. His proper title is "Lord High Chancellor of Great Britain and Ireland." His salary is £10,000 per annum, and he is entitled to a pension of £5000 per annum.

Authorities.—*Observations concerning the Office of Lord Chancellor* (1651), attributed to Lord Chancellor Ellesmere; Blackstone's *Commentaries*; Campbell's *Lives of the Chancellors*; and D. M. Kerly, *Historical Sketch of the Equitable Jurisdiction of the Court of Chancery* (1890).

1 The great seal, which exists in duplicate for Irish use, is the great seal of the United Kingdom.

2 Except the lord chief justice, who is appointed on the nomination of the prime minister.

LORD HIGH CONSTABLE, in England, the seventh of the great officers of state. His office is now called out of abeyance for coronations alone. The constable was originally the commander of the royal armies and the master of the horse. He was also, in conjunction with the earl marshal, president of the court of chivalry or court of honour. In feudal times martial law was administered in the court of the lord high constable. The constableship was granted as a grand serjeanty with the earldom of Hereford by the empress Maud to Milo of Gloucester, and was carried by his heiress to the Bohuns, earls of Hereford and Essex. Through a coheiress of the Bohuns it descended to the Staffords, dukes of Buckingham; and on the

attainder of Edward Stafford, third duke of Buckingham, in the reign of Henry VIII. it became merged in the crown. The Lacys and Verduns were hereditary constables of Ireland from the 12th to the 14th century, and the Hays, earls of Erroll, have been hereditary constables of Scotland from early in the 14th century.

LORD HIGH STEWARD. The Lord High Steward of England, who must not be confused with the Lord Steward, ranks as the first of the great officers of state. Appointments to this office are now made only for special occasions, such as the coronation of a sovereign or the trial of a peer by his peers. The history of the office is noteworthy. The household of the Norman and Angevin kings of England included certain persons of secondary rank, styled dapifers, seneschals or stewards (the prototypes of the lord steward), who were entrusted with domestic and state duties; the former duties were those of purveyors and sewers to the king, the latter were undefined. At coronations, however, and great festivals it became the custom in England and elsewhere to appoint magnates of the first rank to discharge for the occasion the domestic functions of the ordinary officials. In accordance with this custom Henry II. appointed both Robert II., earl of Leicester, and Hugh Bigod, earl of Norfolk, to be his honorary hereditary stewards; and at the Christmas festival of 1186 the successors in title of these two earls, with William, earl of Arundel, who held the similar honorary office of hereditary butler, are described as serving the king at the royal banqueting table. Subsequently the earls of Leicester bought out the rights of the earls of Norfolk for ten knights' fees.

The last of these earls of Leicester to inherit the hereditary stewardship was Simon V. de Montfort; how he served as steward at the coronation of Eleanor, queen of Henry III., is described in the Exchequer Red Book. The office of steward in France, then recently suppressed, had for some time been the highest office of state in that kingdom, and Simon de Montfort appears to have considered that his hereditary stewardship entitled him to high official position in England; and after his victory at Lewes he repeatedly figures as steward of England in official documents under the great seal. After Simon's death at Evesham his forfeited estates were conferred on his son Edmund of Lancaster, who also obtained a grant of the stewardship, but only for life. Edmund was succeeded by Thomas, earl of Lancaster, who received a fresh grant of the stewardship to himself and the heirs of his body from Edward II.; and this earl it was who, during the weak administration of the last-mentioned king, first put forward in a celebrated tract the claim of the steward to be the second personage in the realm and supreme judge in parliament, a claim which finds some slight recognition in the preamble to the statute passed against the Despencers in the first year of Edward III.

Earl Thomas was executed for treason, and though his attainder was reversed he left no issue, and was succeeded in the earldom by his brother Henry. The subsequent earls and dukes of Lancaster were all recognized as stewards of England, the office apparently being treated as annexed to the earldom, or honor, of Leicester. John of Gaunt, indeed, at a time when it was possible that he would never obtain the Leicester moiety of the Lancastrian estates, seems to have made an ingenious but quite unfounded claim to the office as annexed to the honor of Hinckley. Strictly speaking, none of the Lancasters after Thomas had any clear title either by grant or otherwise; such title as they had merged in the crown when Henry IV. usurped the throne. Meanwhile the stewardship had increased in importance. On the accession of Edward III., Henry, earl of Lancaster, as president of the council, had superintended the coronation of the infant king; John of Gaunt did the same for the infant Richard II.; and, as part of the duties involved, sat in the White Hall of Westminster to hear and determine the claims to perform coronation services. The claims were made by petition, and included amongst others: the claim of Thomas of Woodstock to act as constable, the rival claims of John Dymock and Baldwin de Frevile to act as champion, and the claim of the barons of the Cinque Ports to carry a canopy over the king. Minutes of these proceedings, in which the duke is stated to have sat "as steward of England," were enrolled by his order. This is the origin of what is now called the Court of Claims. The precedent of Richard II. has been followed on all subsequent occasions, except that in modern times it has been the practice to appoint commissioners instead of a steward to superintend this court. In 1397 John of Gaunt created a notable precedent in support of the steward's claim to be supreme judge in parliament by presiding at the trial of the earl of Arundel and others.

When Henry IV. came to the throne he appointed his young son Thomas, afterwards duke of Clarence, to the office of steward. Clarence held the office until his death. He himself never acted as judge in parliament; but in 1415 he was appointed to preside at the judgment of peers delivered in Southampton against Richard, earl of Cambridge, and Lord Scrope of Masham, who had been previously tried by commissioners of oyer and terminer. No permanent steward was ever again created; but a steward was always appointed for coronations to perform the various ceremonial services associated with the office, and, until the Court of Claims was entrusted to commissioners, to preside over that court. Also, in the 15th century, it gradually became the custom to appoint a steward *pro hac vice* to preside at the trial, or at the proceedings upon the attainder of a peer in parliament; and later, to preside over a court, called the court of the lord high steward, for the trial of peers when parliament was not sitting. To assist in establishing the latter court a precedent of 1400 appears to have been deliberately forged. This precedent is reported in the printed *Year-Book* of 1400, first published in 1553; it describes the trial of "the earl of H" for participation in the rebellion of that year, and gives details of procedure. John Holand, earl of Huntingdon, is undoubtedly the earl indicated, but the evidence is conclusive that he was murdered in Essex without any trial. The court of the lord high steward seems to have been first definitely instituted in 1499 for the trial of Edward Plantagenet, earl of Warwick; only two years earlier Lord Audley had been condemned by the court of chivalry, a very different and unpopular tribunal. The Warwick trial was most carefully schemed: the procedure, fundamentally dissimilar to that adopted in 1415, follows exactly the forged precedent; but the constitution of the court was plainly derived from the Southampton case. The record of the trial was consigned to a new repository (commonly but wrongly called the Baga de Secretis), which thenceforth became the regular place of custody for important state trials. Latterly, and possibly from its inception, this repository consisted of a closet with three locks, of which the keys were entrusted, one to the chief justice of England, another to the attorney-general and the third to the master of the crown office, or coroner. Notwithstanding the irregular origin of the steward's court, for which Henry VII. must be held responsible, the validity of its jurisdiction cannot be questioned. The Warwick proceedings were confirmed by act of parliament, and ever since this court has been fully recognized as part of the English constitution.

For about a century and a half prior to the reign of James I. the criminal jurisdiction of parliament remained in abeyance, and bills of attainder were the vogue. The practice of appointing a steward on these occasions to execute judgment upon a peer was kept up till 1477, when George, duke of Clarence, was attainted, and then dropped. Under the Stuarts the criminal jurisdiction of parliament was again resorted to, and when the proceedings against a peer were founded on indictment the appointment of a steward followed as a matter of settled practice. The proper procedure in cases of impeachment had, on the contrary, never been defined. On the impeachment of Strafford the lords themselves appointed Arundel to be high steward. In Danby's case a commission under the great seal issued in the common form adopted for the court of the steward; this was recalled, and the rule agreed to by a joint committee of both houses that a steward for trials of peers upon impeachments was unnecessary. But, as such an appointment was obviously convenient, the lords petitioned for a steward; and a fresh commission was accordingly issued in an amended form, which recited the petition, and omitted words implying that the appointment was necessary. This precedent has been treated as settling the practice of parliament with regard to impeachments.

Of the proceedings against peers founded upon indictment very few trials antecedent to the revolution took place in parliament. The preference given to the steward's court was largely due to the practice, founded upon the Southampton case, of summoning only a few peers selected by the steward, a practice which made it easy for the king to secure a conviction. This arrangement has been partially abrogated by the Treason Act of William III., which in cases of treason and misprision of treason requires that all peers of parliament shall be summoned twenty days at least before every such trial. The steward's court also differed in certain other particulars from the high court of parliament. For example, it was ruled by Lord Chancellor Jeffreys, as steward at the trial of Lord Delamere, that, in trials of peers which take place during the recess of parliament in the steward's court, the steward is the judge of the court, the court is held before him, his warrant convenes the prisoner to the bar, his summons convenes the peers for the trial, and he is to determine by his sole authority all questions of law that arise in the course of the trial, but that he is to give no vote upon the issue of guilty or not guilty; during a session of parliament, on the contrary, all the peers are both triers and judges, and the steward is only as chairman of the court and gives his vote together with the other lords. Lord Delamere was tried in 1685 in the steward's court; since then all trials of peers have taken place before the lords in parliament. The most recent trial was that of Earl Russell in 1901, when Lord Chancellor Halsbury was made lord high steward. The steward is addressed as "his grace," he has a rod of office, and the commission appointing him is dissolved according to custom by breaking this rod.

A court of claims sat and a steward was appointed for the coronation of Edward VII.; and during the procession in Westminster Abbey the duke of Marlborough, as steward, carried "St Edward's crown" in front of the bearer of the Bible (the bishop of London), who immediately preceded the king; this function of the steward is of modern origin. The steward's ancient and particular services at coronations are practically obsolete; the full ceremonies, procession from Westminster Hall and banquet in which he figured prominently, were abandoned on the accession of William IV.

For the early history of the steward see L. W. Vernon-Harcourt, *His Grace the Steward and Trial of Peers* (1907); for the later history of the office see Sir E. Coke, *Institutes* (1797); Cobbett and Howell, *State Trials* (1809, seq.); S. M. Phillipps, *State Trials* (1826); John Hatsell, *Precedents*, vol. 4 (1818); and Sir M. Foster, *Crown Law* (1809). See also the various works on *Coronations* for the steward's services on these occasions.

(L. W. V.-H.)

LORD HIGH TREASURER, in England, once the third great officer of state. The office was of Norman origin and dated from 1216. The duty of the treasurer originally was to act as keeper of the royal treasure at Winchester, while as officer of the exchequer he sat at Westminster to receive the accounts of the sheriffs, and appoint officers to collect the revenue. The treasurer was subordinate to both the justiciar and the chancellor, but the removal of the chancery from the exchequer in the reign of Richard I., and the abolition of the office of justiciars in the reign of Henry III., increased his importance. Indeed, from the middle of the reign of Henry III. he became one of the chief officers of the crown. He took an important part in the equitable jurisdiction of the exchequer, and was now styled not merely king's treasurer or treasurer of the exchequer, but lord high treasurer and treasurer of the exchequer. The first office was conferred by delivery of a white staff, the second by patent. Near the end of the 16th century he had developed into an official so occupied with the general policy of the country as to be prevented from supervising personally the details of the department, and Lord Burleigh employed a secretary for this purpose. On the death of Lord Salisbury in 1612 the office was put in commission; it was filled from time to time until 1714, when the duke of Shrewsbury resigned it; since that time it has always been in commission (see Treasury). The Scottish treasury was merged with the English by the Act of Union, but the office of lord high treasurer for Ireland was continued until 1816.

LORD HOWE, an island of the southern Pacific Ocean, lying about 31° 36′ S., 159° 5′ E., 520 m. E.N.E. of Sydney. Pop. 120. It was discovered in 1778 by Lieutenant Ball (whose name is commemorated in the adjacent islet of Ball's Pyramid), and is a dependency of New South Wales. It measures about 5½ m. by 1 m., and is well wooded and hilly (reaching a height of 2840 ft. at the southern end), being of volcanic formation, while there are coral reefs on the western shore. It has a pleasant climate. The name Lord Howe is given also to an islet of the Santa Cruz group, and to two islands, also known under other names—Mopiha, of the Society group, and Ongtong Java of the Solomon Islands.

LORD JUSTICE CLERK, in Scotland, a judge next in rank to the lord justice-general. He presides in the second division of the court of session, and in the absence of the lord justice-general, presides in the court of justiciary. The justice clerk was originally not a judge at all, but simply clerk and legal assessor of the justice court. In course of time he was raised from the clerk's table to the bench, and by custom presided over the court in the absence of the justice-general. Up to 1672 his position was somewhat anomalous, as it was doubtful whether he was a clerk or a judge, but an act of that year, which suppressed the office of justice-depute, confirmed his position as a judge, forming him, with the justice-general and five of the lords of session into the court of justiciary. The lord justice clerk is also one of the officers of state for Scotland, and one of the commissioners for keeping the Scottish Regalia. His salary is £4800 a year.

LORD JUSTICE-GENERAL, the highest judge in Scotland, head of the court of justiciary, called also the lord president, and as such head of the court of session and representative of the sovereign. The office of justice-general was for a considerable time a sinecure post held by one of the Scottish nobility, but by the Court of Session Act 1830, it was enacted

that, at the termination of the existing interest, the office should be united with that of lord president of the court of session, who then became presiding judge of the court of justiciary. The salary is £5000 a year.

LORD KEEPER OF THE GREAT SEAL, in England, formerly a great officer of state. The Great Seal of England, which is affixed on all solemn occasions to documents expressing the pleasure of the sovereign, was first adopted by Edward the Confessor (see SEALS), and entrusted to a chancellor for keeping. The office of chancellor from the time of Becket onwards varied much in importance; the holder being an ecclesiastic, he was not only engaged in the business of his diocese, but sometimes was away from England. Consequently, it became not unusual to place the personal custody of the great seal in the hands of a vice-chancellor or keeper; this, too, was the practice followed during a temporary vacancy in the chancellorship. This office gradually developed into a permanent appointment, and the lord keeper acquired the right of discharging all the duties connected with the great seal. He was usually, though not necessarily, a peer, and held office during the king's pleasure, he was appointed merely by delivery of the seal, and not, like the chancellor, by patent. His status was definitely fixed (in the case of lord keeper Sir Nicholas Bacon) by an act of Elizabeth, which declared him entitled to "like place, pre-eminence, jurisdiction, execution of laws, and all other customs, commodities, and advantages" as the lord chancellor. In subsequent reigns the lord keeper was generally raised to the chancellorship, and retained the custody of the seal. The last lord keeper was Sir Robert Henley (afterwards Lord Northington), who was made chancellor on the accession of George III.

LORD MAYOR'S DAY, in England, the 9th of November, the date of the inauguration of the lord mayor of London (see Vol. XVI., p. 966), marked by a pageant known as the Lord Mayor's Show. The first of these pageants was held in 1215. The idea originated in the stipulation made in a charter then granted by John that the citizen chosen to be mayor should be presented to the king or his justice for approval. The crowd of citizens who accompanied the mayor on horseback to Westminster developed into a yearly pageant, which each season became more elaborate. Until the 15th century the mayor either rode or walked to Westminster, but in 1453 Sir John Norman appears to have set a fashion of going by water. From 1639 to 1655 the show disappeared owing to Puritan opposition. With the Restoration the city pageant was revived, but interregnums occurred during the years of the plague and fire, and in 1683 when a quarrel broke out between Charles and the city, ending in the temporary abrogation of the charter. In 1711 an untoward accident befell the show, the mayor Sir Gilbert Heathcote (the original of Addison's Sir Andrew Freeport) being thrown by his horse. The next year a coach was, in consequence, provided for the chief magistrate. In 1757 this was superseded by a gilded and elaborately decorated equipage costing £10,065 which was used till 1896, when a replica of it was built to replace it.

LORD PRESIDENT OF THE COUNCIL, in England, one of the great officers of state, and a member of the ministry. It was only in 1679 that the office of lord president became permanent. Previously either the lord chancellor, the lord keeper of the seal, or some particular court official took formal direction of the Privy Council. In the reign of Charles I. a special lord president of the council was appointed, but in the following reign the office was left unfilled. The office was of considerable importance when the powers of the Privy Council, exercised through various committees, were of greater extent than at the present time. For example, a committee of the lords of the council was formerly responsible for the work now dealt with by the secretary of state for foreign affairs; so also with that now discharged by the Board of Trade. The lord president up to 1855—when a new post of vice-president of the council was created—was responsible for the education department. He was also responsible for the duties of the council in regard to public health, now transferred to the Local Government Board, and for duties in regard to agriculture, now transferred to the Board of Agriculture and Fisheries. The duties of the office now consist of presiding on the not very frequent occasions when the Privy Council meets, and of the drawing up of minutes of council upon subjects which do not belong to any other department of state. The office is very frequently held in conjunction with other ministerial offices, for example, in Gladstone's fourth ministry the secretary of state for India was also lord president of the council, and in the conservative ministry of 1903 the holder of the office was also president of the Board of Education. The lord president is appointed by a declaration made in council by the sovereign. He is invariably a member of the House of Lords, and he is also included in the cabinet.

LORDS JUSTICES OF APPEAL, in England, the ordinary judges of the court of appeal, the appellate division of the High Court of Justice. Their style was provided for by the Supreme Court of Judicature Act 1877. The number was fixed at five by the Supreme Court of Judicature Act 1881, s. 3. Their salary is £5000 a year (see APPEAL).

LORDS OF APPEAL IN ORDINARY, in England, certain persons (limited to four), who, having held high

judicial office or practised at the bar for not less than fifteen years, sit as members of the House of Lords to adjudicate in cases before that House in its legal capacity, and also to aid the judicial committee of the Privy Council in hearing appeals. Of the four lords of appeal in ordinary one is usually appointed from the Irish bench or bar and one from Scotland. Their salary is £6000 a year. They hold office on the same conditions as other judges. By the Appellate Jurisdiction Act 1876, under which they are appointed, lords of appeal in ordinary are, by virtue of and according to the date of their appointment, entitled during life to rank as barons and during the time that they continue in office are entitled to a writ of summons to attend, and to sit and vote in the House of Lords. They are life peers only. The patent of a lord of appeal in ordinary differs from that of a baron in that he is not "created" but "nominated and appointed to be a Lord of Appeal in Ordinary by the style of Baron."

LORD STEWARD, in England, an important official of the king's household. He is always a member of the government, a peer and a privy councillor. Up to 1782, the office was one of considerable political importance and carried cabinet rank. The lord steward receives his appointment from the sovereign in person, and bears a white staff as the emblem and warrant of his authority. He is the first dignitary of the court. In the *Statutes of Eltham* he is called "the lord great master," but in the *Household Book* of Queen Elizabeth "the lord steward," as before and since. In an act of Henry VIII. (1539) "for placing of the lords," he is described as "the grand master or lord steward of the king's most honourable household." He presides at the Board of Green Cloth.[1] In his department are the treasurer and comptroller of the household, who rank next to him. These officials are usually peers or the sons of peers and privy councillors. They sit at the Board of Green Cloth, carry white staves, and belong to the ministry. But the duties which in theory belong to the lord steward, treasurer and comptroller of the household are in practice performed by the master of the household, who is a permanent officer and resides in the palace. He is a white-staff officer and a member of the Board of Green Cloth but not of the ministry, and among other things he presides at the daily dinners of the suite in waiting on the sovereign. In his case history repeats itself. He is not named in the *Black Book* of Edward IV. or in the *Statutes* of Henry VIII., and is entered as "master of the household and clerk of the green cloth" in the *Household Book* of Queen Elizabeth. But he has superseded the lord steward of the household, as the lord steward of the household at one time superseded the lord high steward of England.

In the lord steward's department are the officials of the Board of Green Cloth, the coroner ("coroner of the verge"), and paymaster of the household, and the officers of the almonry (see ALMONER). Other offices in the department were those of the cofferer of the household, the treasurer of the chamber, and the paymaster of pensions, but these, with six clerks of the Board of Green Cloth, were abolished in 1782. The lord steward had formerly three courts besides the Board of Green Cloth under him. First, the lord steward's court, superseded (1541) by—second—the Marshalsea court, a court of record having jurisdiction, both civil and criminal within the verge (the area within a radius of 12 m. from where the sovereign is resident), and originally held for the purpose of administering justice between the domestic servants of the sovereign, "that they might not be drawn into other courts and their service lost." Its criminal jurisdiction had long fallen into disuse and its civil jurisdiction was abolished in 1849. Third, the palace court, created by letters patent in 1612 and renewed in 1665 with jurisdiction over all personal matters arising between parties within 12 m. of Whitehall (the jurisdiction of the Marshalsea court, the City of London, and Westminster Hall being excepted). It differed from the Marshalsea court in that it had no jurisdiction over the sovereign's household nor were its suitors necessarily of the household. The privilege of practising before the palace court was limited to four counsel. It was abolished in 1849. The lord steward or his deputies formerly administered the oaths to the members of the House of Commons. In certain cases (messages from the sovereign under the sign-manual) "the lords with white staves" are the proper persons to bear communications between the sovereign and the houses of parliament.

AUTHORITIES.—*Statutes of Eltham; Household Book* of Queen Elizabeth; Coke, *Institutes*; Reeves, *History of the Law of England*; Stephen, *Commentaries on the Laws of England*; Hatsell, *Precedents of Proceedings in the House of Commons*; May, *Parliamentary Practice*.

1 A committee of the king's household, consisting of the lord steward and his subordinates, charged with the duty of examining and passing all the accounts of the household. The board had also power to punish all offenders within the verge or jurisdiction of the palace, which extended in every direction for 200 yds. from the gates of the court yard. The name is derived from the green-covered table at which the transactions of the board were originally conducted.

LORÉ, AMBROISE DE (1396-1446), baron of Ivry in Normandy and a French commander, was born at the château of Loré (Orne, arrondissement of Domfront). His first exploit in arms was at the battle of Agincourt in 1415; he followed the party of the Armagnacs and attached himself to the dauphin Charles. He waged continual warfare against the English in Maine until the advent of Joan of Arc. He fought at Jargeau, at Meung-sur-Loire and at Patay (1429). Using his fortress of Saint Céneri as a base of operations during the next few years, he seized upon Matthew Gough near Vivoin in 1431, and made an incursion as far as the walls of Caen, whence he brought away three thousand prisoners. Taken captive himself in 1433, he was exchanged for Talbot. In 1435 he and Dunois defeated the English near Meulan, and in 1436 he helped the constable Arthur, earl of Richmond (de Richmond), to expel them from Paris. He was appointed provost of Paris in February 1437, and in 1438 he was made "judge and general reformer of the malefactors of the kingdom." He was present in 1439 at the taking of Meaux, in 1441 at that of Pontoise, and he died on the 24th of May 1446.

See the *Nouvelle Biographie Générale*, vol. xxxi., and the *Revue Historique du Maine*, vols. iii. and vi.

(J. V.*)

LORE, properly instruction, teaching, knowledge. The O. Eng. *lár*, as the Dutch *leer* and Ger. *Lehre*, represents the Old Teutonic root, meaning to impart or receive knowledge, seen in "to learn," "learning." In the *Gentleman's Magazine* for June 1830 it was suggested that "lore" should be used as a termination instead of the Greek derivative *-ology* in the names of the various sciences. This was never done, but the word, both as termination and alone, is frequently applied to the many

traditional beliefs, stories, &c., connected with the body of knowledge concerning some special subject; *e.g.* legendary lore, bird-lore, &c. The most familiar use is in "folk-lore" (*q.v.*).

LORELEI (from Old High Ger. *Lur*, connected with modern Ger. *lauern*, "to lurk," "be on the watch for," and equivalent to elf, and *lai*, "a rock"). The Lorelei is a rock in the Rhine near St Goar, which gives a remarkable echo, which may partly account for the legend. The tale appears in many forms, but is best known through Heinrich Heine's poem, beginning *Ich weiss nicht was soll es bedeuten*. In the commonest form of the story the Lorelei is a maiden who threw herself into the Rhine in despair over a faithless lover, and became a siren whose voice lured fishermen to destruction. The 13th-century minnesinger, known as Der Marner, says that the Nibelungen treasure was hidden beneath the rock. The tale is obviously closely connected with the myth of Holda, queen of the elves. On the Main she sits combing her locks on the Hullenstein, and the man who sees her loses sight or reason, while he who listens is condemned to wander with her for ever. The legend, which Clemens Brentano claimed as his own invention when he wrote his poem "Zu Bacharach am Rheine" in his novel of *Godwi* (1802), bears all the marks of popular mythology. In the 19th century it formed material for a great number of songs, dramatic sketches, operas and even tragedies, which are enumerated by Dr Hermann Seeliger in his *Loreleysage in Dichtung und Musik* (Leipzig-Reudnitz, 1898). The favourite poem with composers was Heine's, set to music by some twenty-five musicians, the settings by Friedrich Silcher (from an old folk-song) and by Liszt being the most famous.

LORETO, an episcopal see and pilgrimage resort of the Marches, Italy, in the province of Ancona, 15 m. by rail S.S.E. of that town. Pop. (1901) 1178 (town), 8033 (commune). It lies upon the right bank of the Musone, at some distance from the railway station, on a hill-side commanding splendid views from the Apennines to the Adriatic, 341 ft. above sea-level. The town itself consists of little more than one long narrow street, lined with shops for the sale of rosaries, medals, crucifixes and similar objects, the manufacture of which is the sole industry of the place. The number of pilgrims is said to amount to 50,000 annually, the chief festival being held on the 8th of September, the Nativity of the Virgin. The principal buildings, occupying the four sides of the piazza, are the college of the Jesuits, the Palazzo Apostolico, now Reale (designed by Bramante), which contains a picture gallery with works of Lorenzo Lotto, Vouet and Caracci and a collection of majolica, and the cathedral church of the Holy House (Chiesa della Casa Santa), a Late Gothic structure continued by Giuliano da Maiano, Giuliano da Sangallo and Bramante. The handsome façade of the church was erected under Sixtus V., who fortified Loreto and gave it the privileges of a town (1586); his colossal statue stands in the middle of the flight of steps in front. Over the principal doorway is a life-size bronze statue of the Virgin and Child by Girolamo Lombardo; the three superb bronze doors executed at the latter end of the 16th century and under Paul V. (1605-1621) are also by Lombardo, his sons and his pupils, among them Tiburzio Vergelli, who also made the fine bronze font in the interior. The doors and hanging lamps of the Santa Casa are by the same artists. The richly decorated campanile, by Vanvitelli, is of great height; the principal bell, presented by Leo X. in 1516, weighs 11 tons. The interior of the church has mosaics by Domenichino and Guido Reni and other works of art. In the sacristies on each side of the right transept are frescoes, on the right by Melozzo da Forli, on the left by Luca Signorelli. In both are fine intarsias.

But the chief object of interest is the Holy House itself. It is a plain stone building, 28 ft. by 12½ and 13½ ft. in height; it has a door on the north side and a window on the west; and a niche contains a small black image of the Virgin and Child, in Lebanon cedar, and richly adorned with jewels. St Luke is alleged to have been the sculptor; its workmanship suggests the latter half of the 15th century. Around the Santa Casa is a lofty marble screen, designed by Bramante, and executed under Popes Leo X., Clement VII. and Paul III., by Andrea Sansovino, Girolamo Lombardo, Bandinelli, Guglielmo della Porta and others. The four sides represent the Annunciation, the Nativity, the Arrival of the Santa Casa at Loreto and the Nativity of the Virgin respectively. The treasury contains a large variety of rich and curious votive offerings. The architectural design is finer than the details of the sculpture. The choir apse is decorated with modern German frescoes, which are somewhat out of place.

The legend of the Holy House seems to have sprung up (how is not exactly known) at the close of the crusading period.

It is briefly referred to in the *Italia Illustrata* of Flavius Blondus, secretary to Popes Eugenius IV., Nicholas V., Calixtus III. and Pius II. (*ob.* 1464); it is to be read in all its fullness in the "Redemptoris mundi Matris Ecclesiae Lauretana historia," by a certain Teremannus, contained in the *Opera Omnia* (1576) of Baptista Mantuanus. According to this narrative the house at Nazareth in which Mary had been born and brought up, had received the annunciation, and had lived during the childhood of Jesus and after His ascension, was converted into a church by the apostles. In 336 the empress Helena made a pilgrimage to Nazareth and caused a basilica to be erected over it, in which worship continued until the fall of the kingdom of Jerusalem. Threatened with destruction by the Turks, it was carried by angels through the air and deposited (1291) in the first instance on a hill at Tersatto in Dalmatia, where an appearance of the Virgin and numerous miraculous cures attested its sanctity, which was confirmed by investigations made at Nazareth by messengers from the governor of Dalmatia. In 1294 the angels carried it across the Adriatic to a wood near Recanati; from this wood (lauretum), or from the name of its proprietrix (Laureta), the chapel derived the name which it still retains ("sacellum gloriosae Virginis in Laureto"). From this spot it was afterwards (1295) removed to the present hill, one other slight adjustment being required to fix it in its actual site. Bulls in favour of the shrine at Loreto were issued by Pope Sixtus IV. in 1491 and by Julius II. in 1507, the last alluding to the translation of the house with some caution ("ut pie creditur et fama est"). The recognition of the sanctuary by subsequent pontiffs has already been alluded to. In the end of the 17th century Innocent XII. appointed a "missa cum officio proprio" for the feast of the Translation of the Holy House, and the feast is still enjoined in the Spanish Breviary as a "greater double" (December 10).

See also U. Chevalier, *Notre-Dame de Lorette* (Paris, 1906).

LORETO, an inland department of Peru, lying E. of the Andean Cordilleras and forming the N.E. part of the republic. Extensive territories, nominally parts of this department, are in dispute between Peru and the neighbouring republics of

Brazil, Colombia and Ecuador (see PERU), and the northern and eastern boundaries of the territory are therefore not definitely determined. Loreto is bounded W. by the departments of Amazonas and San Martin (the latter a new department, with an area of 30,744 sq. m., taken from Loreto, lying between the central and eastern Cordilleras and extending from the 6th to the 9th parallels, approximately), and S. by Huánuco and Cuzco. The area of the department, including the territories claimed by Peru, is estimated at 257,798 sq. m. The population is estimated (1906) at 120,000. The aboriginal population is not numerous, as the thick, humid forests are inhabited only where lakes and streams make open spaces for sunlight and ventilation. With the exception of the eastern Andean slopes and a little-known range of low mountains on the Brazilian frontier, called the Andes Conomamas, the surface is that of a thickly wooded plain sloping gently towards the Marañon, or Upper Amazon, which crosses it from W. to E. There are open plains between the Ucayali and Huallaga, known as the Pampas del Sacramento, but otherwise there are no extensive breaks in the forest. The elevation of the plain near the base of the Andes is 526 ft. on the Ucayali, 558 on the Huallaga, and 453 at Barranca, on the Marañon, a few miles below the Pongo de Manseriche. The eastward slope of the plain is about 250 ft. in the 620 m. (direct) between this point and Tabatinga, on the Brazilian frontier; this not only shows the remarkably level character of the Amazon valley of which it forms a part, but also the sluggish character of its drainage. From the S. the principal rivers traversing Loreto are the Ucayali and Huallaga, the former entering from Cuzco across its southern boundary and skirting the eastern base of the Andes for about four degrees of latitude before it turns away to the N.E. to join the Marañon, and the latter breaking through the Eastern Cordillera between the 6th and 7th parallels and entering the Marañon 143 m. below Yurimaguas, where navigation begins. The lower Ucayali, which has a very tortuous course, is said to have 868 m. of navigable channel at high water and 620 m. at low water. North of the Marañon several large rivers pass through Peruvian territory between the Santiago and Napo (see Ecuador), nearly all having navigable channels. On the level plains are a number of lakes, some are formed by the annual floods and are temporary in character. Among the permanent lakes are the Gran Cocama, of the Pampas del Sacramento, the Caballococha —a widening of the Amazon itself about 60 m. N.W. of Tabatinga—and Rimachuma, on the north side of the Marañon, near the lower Pastaza.

The natural resources of this extensive region are incalculable, but their development has been well nigh impossible through lack of transport facilities. They include the characteristic woods of the Amazon valley, rubber, nuts, cinchona or Peruvian bark, medicinal products, fish, fruits and fibres. The cultivated products include cocoa, coffee, tobacco and fruits. Straw hats and hammocks are manufactured to some extent. The natural outlet of this region is the Amazon river, but this involves 2500 m. of river navigation from Iquitos before the ocean is reached. Communication with the Pacific coast cities and ports of Peru implies the crossing of three high, snow-covered ranges of the Andes by extremely difficult trails and passes. A rough mountain road has been constructed from Oroya to Puerto Bermudez, at the head of navigation on the Pachitea, and is maintained by the government pending the construction of a railway, but the distance is 210 m. and it takes nine days for a mule train to make the journey. At Puerto Bermudez a river steamer connects with Iquitos, making the distance of 930 m. in seven days. From Lima to Iquitos by this route, therefore, involves 17 days travel over a distance of 1268 m. The most feasible route from the department to the Pacific coast is that which connects Puerto Limon, on the Marañon, with the Pacific port of Payta, a distance of 410 m., it being possible to cross the Andes on this route at the low elevation of 6600 ft. The climate of Loreto is hot and humid, except on the higher slopes of the Andes. The year is divided into a wet and a dry season, the first from May to October, and the average annual rainfall is estimated at 70 in. though it varies widely between distant points. The capital and only town of importance in the department is Iquitos.

LORIENT, a maritime town of western France, capital of an arrondissement in the department of Morbihan, on the right bank of the Scorff at its confluence with the Blavet, 34 m. W. by N. of Vannes by rail. Pop. (1906) 40,848. The town is modern and regularly built. Its chief objects of interest are the church of St Louis (1709) and a statue by A. Mercié of Victor Massé, the composer, born at Lorient in 1822. It is one of the five maritime prefectures in France and the first port for naval construction in the country. The naval port to the east of the town is formed by the channel of the Scorff, on the right bank of which the chief naval establishments are situated. These include magazines, foundries, forges, fitting-shops, rope-works and other workshops on the most extensive scale, as well as a graving dock, a covered slip and other slips. A floating bridge connects the right bank with the peninsula of Caudan formed by the union of the Scorff and Blavet. Here are the shipbuilding yards covering some 38 acres, and comprising nine slips for large vessels and two others for smaller vessels, besides forges and workshops for iron shipbuilding. The commercial port to the south of the town consists of an outer tidal port protected by a jetty and of an inner dock, both lined by fine quays planted with trees. It separates the older part of the town, which is hemmed in by fortifications from a newer quarter. In 1905, 121 vessels of 28,785 tons entered with cargo and 145 vessels of 38,207 tons cleared. The chief export is pit-timber, the chief import is coal. Fishing is actively carried on. Lorient is the seat of a sub-prefect, of commercial and maritime tribunals and of a tribunal of first instance, and has a chamber of commerce, a board of trade-arbitrators, a lycée, schools of navigation, and naval artillery. Private industry is also engaged in iron-working and engine making. The trade in fresh fish, sardines, oysters (which are reared near Lorient) and tinned vegetables is important and the manufacture of basket-work, tin-boxes and passementerie, arid the preparation of preserved sardines and vegetables are carried on. The roadstead, formed by the estuary of the Blavet, is accessible to vessels of the largest size; the entrance, 3 or 4 m. south from Lorient, which is defended by numerous forts, is marked on the east by the peninsula of Gâvres (an artillery practising ground) and the fortified town of Port Louis; on the west are the fort of Loqueltas and, higher up, the battery of Kernevel. In the middle of the channel is the granite rock of St Michel, occupied by a powder magazine. Opposite it, on the right bank of the Blavet, is the mouth of the river Ter, with fish and oyster breeding establishments from which 10 millions of oysters are annually obtained. The roadstead is provided with six lighthouses. Above Lorient on the Scorff, here spanned by a suspension bridge, is Kérentrech, a pretty village surrounded by numerous country houses.

Lorient took the place of Port Louis as the port of the Blavet. The latter stands on the site of an ancient hamlet which was fortified during the wars of the League and handed over by Philip Emmanuel, duke of Morcœur, to the Spaniards. After the treaty of Vervins it was restored to France, and it received its name of Port Louis under Richelieu. Some Breton merchants trading with the Indies had established themselves first at Port Louis, but in 1628 they built their warehouses on the other bank. The Compagnie des Indes Orientales, created in 1664, took possession of these, giving them the name of l'Orient. In 1745 the Compagnie des Indes, then at the acme of its prosperity, owned thirty-five ships of the largest class and many others of considerable size. Its decadence dates from the English conquest of India, and in 1770 its property was ceded to the state. In 1782 the town was purchased by Louis XVI. from its owners, the Rohan-Guéméné family. In 1746 the English under Admiral Richard Lestock made an unsuccessful attack on Lorient.

LORINER, or Lorimer (from O. Fr. *loremier* or *lorenier*, a maker of *lorains*, bridles, from Lat. *lorum*, thong, bridle; the proper form is with the *n*; a similar change is found in Latimer for Latiner, the title of an old official of the royal household, the king's interpreter), one who makes bits and spurs and the metal mountings for saddles and bridles; the term is also applied to a worker in wrought iron and to a maker of small iron ware. The word is now rarely used except as the name of one of the London livery companies (see Livery Company).

LORIS, a name of uncertain origin applied to the Indo-Malay representatives of the lemurs, which, together with the African pottos, constitute the section *Nycticebinae* of the family *Nycticebidae* (see Primates). From their extremely slow movements and lethargic habits in the daytime these weird little creatures are commonly called sloths by Anglo-Indians. Their soft fur, huge staring eyes, rudimentary tails and imperfectly developed index-fingers render lorises easy of recognition. The smallest is the slender loris (*Loris gracilis*) of the forests of Madras and Ceylon, a creature smaller than a squirrel. It is of such exceeding strangeness and beauty that it might have been thought it would be protected by the natives; but they hold it alive before a fire till its beautiful eyes burst in order to afford a supposed remedy for ophthalmia! The mainland and Cingalese animals form distinct races. Both in this species and the slow loris there is a pair of rudimentary abdominal teats in addition to the normal pectoral pair. The slow loris (*Nycticebus tardigradus*) is a heavier built and larger animal, ranging from eastern Bengal to Cochin China, Siam, the Malay Peninsula, Java and Sumatra. There are several races, mostly grey in colour, but the Sumatran *N. t. hilleri* is reddish.

(R. L.*)

LORIS-MELIKOV, MICHAEL TARIELOVICH, Count (1825?-1888), Russian statesman, son of an Armenian merchant, was born at Tiflis in 1825 or 1826, and educated in St Petersburg, first in the Lazarev School of Oriental Languages, and afterwards in the Guards' Cadet Institute. He joined a hussar regiment, and four years afterwards (1847) he was sent to the Caucasus, where he remained for more than twenty years, and made for himself during troublous times the reputation of a distinguished cavalry officer and an able administrator. In the latter capacity, though a keen soldier, he aimed always at preparing the warlike and turbulent population committed to his charge for the transition from military to normal civil administration, and in this work his favourite instrument was the schoolmaster. In the Russo-Turkish War of 1877-78 he commanded a separate corps d'armée on the Turkish frontier in Asia Minor. After taking the fortress of Ardahan, he was repulsed by Mukhtar Pasha at Zevin, but subsequently defeated his opponent at Aladja Dagh, took Kars by storm, and laid siege to Erzerum. For these services he received the title of Count. In the following year he was appointed temporary governor-general of the region of the Lower Volga, to combat an outbreak of the plague. The measures he adopted proved so effectual that he was transferred to the provinces of Central Russia to combat the Nihilists and Anarchists, who had adopted a policy of terrorism, and had succeeded in assassinating the governor of Kharkov. His success in this struggle led to his being appointed chief of the Supreme Executive Commission which had been created in St Petersburg to deal with the revolutionary agitation in general. Here, as in the Caucasus, he showed a decided preference for the employment of ordinary legal methods rather than exceptional extra-legal measures, and an attempt on his own life soon after he assumed office did not shake his convictions. In his opinion the best policy was to strike at the root of the evil by removing the causes of popular discontent, and for this purpose he recommended to the emperor a large scheme of administrative and economic reforms. Alexander II., who was beginning to lose faith in the efficacy of the simple method of police repression hitherto employed, lent a willing ear to the suggestion; and when the Supreme Commission was dissolved in August 1880, he appointed Count Loris-Melikov Minister of the Interior with exceptional powers. The proposed scheme of reforms was at once taken in hand, but it was never carried out. On the very day in March 1881 that the emperor signed a ukaz creating several commissions, composed of officials and eminent private individuals, who should prepare reforms in various branches of the administration, he was assassinated by Nihilist conspirators; and his successor, Alexander III., at once adopted a strongly reactionary policy. Count Loris-Melikov immediately resigned, and lived in retirement until his death, which took place at Nice on the 22nd of December 1888.

(D. M. W.)

LORIUM, an ancient village of Etruria, Italy, on the Via Aurelia, 12 m. W. of Rome. Antoninus Pius, who was educated here, afterwards built a palace, in which he died. It was also a favourite haunt of Marcus Aurelius. Remains of ancient buildings exist in the neighbourhood of the road on each side (near the modern Castel di Guido) and remains of tombs, inscriptions, &c., were excavated in 1823-1824. Two or three miles farther west was probably the post-station of Bebiana, where inscriptions show that some sailors of the fleet were stationed—no doubt a detachment of those at Centumcellae, which was reached by this road.

LÖRRACH, a town in the grand-duchy of Baden, in the valley of the Wiese, 6 m. by rail N.E. of Basel. Pop. (1905) 10,794. It is the seat of considerable industry, its manufactures including calico, shawls, cloth, silk, chocolate, cotton, ribbons, hardware and furniture, and has a trade in wine, fruit and timber. There is a fine view from the neighbouring Schützenhaus, 1085 ft. high. In the neighbourhood also is the castle of Rötteln, formerly the residence of the counts of Hachberg and of the margraves of Baden; this was destroyed by the French in 1678, but was rebuilt in 1867. Lörrach received market rights in 1403, but did not obtain municipal privileges until 1682.

See Höchstetter, *Die Stadt Lörrach* (Lörrach, 1882).

LORRAINE, one of the former provinces of France. The name has designated different districts in different periods. Lotharingia, or Lothringen, *i.e. regnum Lotharii*, is derived from the *Lotharingi* or *Lotharienses* (O.G. *Lotheringen*, Fr. *Loherains*, *Lorrains*), a term applied originally to the Frankish subjects of Lothair, but restricted at the end of the 9th century to those who dwelt north of the southern Vosges.

Lorraine in Medieval Times.—The original kingdom of Lorraine was the northern part of the territories allotted by the treaty of Verdun (August 843) to the emperor Lothair I., and in 855 formed the inheritance of his second son, King Lothair. This kingdom of Lorraine was situated between the realms of the East and the West Franks, and originally extended along the North Sea between the mouths of the Rhine and the Ems, including the whole or part of Frisia and the cities on the right bank of the Rhine. From Bonn the frontier followed the Rhine as far as its confluence with the Aar, which then became the boundary, receding from the left bank in the neighbourhood of Bingen so as to leave the cities of Worms and Spires to Germany, and embracing the duchy of Alsace. After crossing the Jura, the frontier joined the Saône a little south of its confluence with the Doubs, and followed the Saône for some distance, and finally the valleys of the Meuse and the Scheldt. Thus the kingdom roughly comprised the region watered by the Moselle and the Meuse, together with the dioceses of Cologne, Trier, Metz, Toul, Verdun, Liége and Cambrai, Basel, Strassburg and Besançon, and corresponded to what is now Holland and Belgium, parts of Rhenish Prussia, of Switzerland, and of the old province of Franche-Comté, and to the district known later as Upper Lorraine, or simply Lorraine. Though apparently of an absolutely artificial character, this kingdom corresponded essentially to the ancient Francia, the cradle of the Carolingian house, and long retained a certain unity. It was to the inhabitants of this region that the name of *Lotharienses* or *Lotharingi* was primitively applied, although the word *Lotharingia*, as the designation of the country, only appears in the middle of the 10th century.

The reign of King Lothair (*q.v.*), which was continually disturbed by quarrels with his uncles, Charles the Bald and Louis the German, and by the difficulties caused by the divorce of his queen Teutberga, whom he had forsaken for a concubine called Waldrada, ended on the 8th of August 869. His inheritance was disputed by his uncles, and was divided by the treaty of Meersen (8th of August 870), by which Charles the Bald received part of the province of Besançon and some land between the Moselle and the Meuse. Then for a time the emperor Charles the Fat united under his authority the whole of the kingdom of Lorraine with the rest of the Carolingian empire. After the deposition of Charles in 888 Rudolph, king of Burgundy, got himself recognized in Lorraine. He was unable to maintain himself there, and succeeded in detaching definitively no more than the province of Besançon. Lorraine remained in the power of the emperor Arnulf, who in 895 constituted it a distinct kingdom in favour of his son Zwentibold. Zwentibold quickly became embroiled with the nobles and the bishops, and especially with Bishop Radbod of Trier. Among the lay lords the most important was Regnier (incorrectly called Long-neck), count of Hesbaye and Hainault, who is styled duke by the Lotharingian chronicler Reginon, though he does not appear ever to have borne the title. In 898 Zwentibold stripped Regnier of his fiefs, whereupon the latter appealed to the king of France, Charles the Simple, whose intervention, however, had no enduring effect. After the death of Arnulf in 899, the Lotharingians appealed to his successor, Louis the Child, to replace Zwentibold, who, on the 13th of August 900, was killed in battle. In spite of the dissensions which immediately arose between him and the Lotharingian lords, Louis retained the kingdom till his death. The Lotharingians, however, refused to recognize the new German king, Conrad I., and testified their attachment to the Carolingian house by electing as sovereign the king of the West Franks, Charles the Simple. Charles was at first supported by Giselbert, son and successor of Regnier, but was abandoned by his ally, who in 919 appealed to the German king, Henry I. The struggle ended in the treaty of Bonn (921), by which apparently the rights of Charles over Lorraine were recognized. The revolt of the Frankish lords in 922 and the captivity of Charles finally settled the question. After an unsuccessful attack by Rudolph or Raoul, king of France, Henry became master of Lorraine in 925, thanks to the support of Giselbert, whom he rewarded with the hand of his daughter Gerberga and the title of duke of Lorraine. Giselbert at first remained faithful to Henry's son, Otto the Great, but in 938 he appears to have joined the revolt directed against Otto by Eberhard, duke of Franconia. In 939, in concert with Eberhard and Otto's brother, Henry of Saxony, he declared open war against Otto and appealed to Louis d'Outremer, who penetrated into Lorraine and Alsace, but was soon called back to France by the revolt of the count of Vermandois. In the same year Giselbert and Eberhard were defeated and killed near Andernach, and Otto at once made himself recognized in the whole of Lorraine, securing it by a treaty with Louis d'Outremer, who married Giselbert's widow Gerberga, and entrusting the government of it to Count Otto, son of Ricuin, until Giselbert's son Henry should have attained his majority.

After the deaths of the young Henry and Count Otto in 944, Otto the Great gave Lorraine to Conrad the Red, duke of Franconia, the husband of his daughter Liutgard, a choice which was not completely satisfactory to the Lotharingians. In 953 Conrad, in concert with Liudulf, the son of the German king, revolted against Otto, but was abandoned by his supporters. Otto stripped Conrad of his duchy, and in 954 gave the government of it to his own brother Bruno, archbishop of Cologne. Bruno had to contend against the efforts of the last Carolingians of France to make good their claims on Lorraine, as well as against the spirit of independence exhibited by the Lotharingian nobles; and his attempts to raze certain castles built by brigand lords and to compel them to respect their oath of fidelity resulted in serious sedition. To obviate these difficulties Bruno divided the ducal authority, assigning Lower Lorraine to a certain Duke Godfrey, who was styled *dux Ripuariorum*, and Upper Lorraine to Frederick (d. 959), count of Bar, a member of the house of Ardenne and son-in-law of Hugh the Great, with the title of *dux Mosellanorum*; and it is probable that the partition of the ancient kingdom of Lorraine into two new duchies was confirmed by Otto after Bruno's death in 965. In 977 the emperor Otto II. gave the government of Lower Lorraine to Charles I., a younger son of Louis d'Outremer, on condition that that prince should acknowledge himself his vassal and should oppose any attempt of his brother Lothair on Lorraine. The consequent expedition of the king of France in 978 against Aix-la-Chapelle had no enduring result, and Charles retained his duchy till his death about 992. He left two sons, Otto, who succeeded him and died without issue, and Henry, who is sometimes regarded as the ancestor of the landgraves of Thuringia. The duchy of Lower Lorraine, sometimes called *Lothier* (*Lotharium*), was then given to Godfrey (d. 1023), son of Count Godfrey of Verdun, and for some time the history of Lorraine is the history of the attempts made by the dukes of Lothier to seize Upper Lorraine. Gothelon (d. 1043), son of Duke Godfrey, obtained Lorraine at the death of Frederick II., duke of Upper Lorraine, in 1027, and victoriously repulsed the incursions of Odo (Eudes) of Blois, count of Champagne, who was defeated and killed in a battle near Bar (1037). At Gothelon's death in 1043, his son Godfrey the Bearded received from the emperor only Lower Lorraine, his brother Gothelon II. obtaining Upper Lorraine. Godfrey attempted to seize the upper duchy, but was defeated and imprisoned in 1045. On the death of Gothelon in 1046, Godfrey endeavoured to take Upper Lorraine from Albert of Alsace, to whom it had been granted by the emperor Henry III. The attempt, however, also failed; and Godfrey was for some time deprived of his own duchy of Lower Lorraine in favour of Frederick of Luxemburg. Godfrey took part in the struggles of Pope Leo IX. against the Normans in Italy, and in 1053 married Beatrice, daughter of Duke Frederick of Upper Lorraine and widow of Boniface, margrave of Tuscany. On the death of Frederick of Luxemburg in 1065 the emperor Henry IV. restored the duchy of Lower Lorraine to Godfrey, who retained it till his death in 1069, when he was succeeded by his son Godfrey the Hunchback (d. 1076), after whose death Henry IV. gave the duchy to Godfrey of Bouillon, the hero of the first crusade, son of Eustace, count of Boulogne, and Ida, sister of Godfrey the Hunchback. On the death of Godfrey of Bouillon in 1100 Lower Lorraine was given to Henry, count of Limburg. The new duke supported the emperor Henry IV. in his struggles with his sons, and in consequence was deposed by the emperor Henry V., who gave the duchy in 1106 to Godfrey, count of Louvain, a

descendant of the Lotharingian dukes of the beginning of the 10th century. This Godfrey was the first hereditary duke of Brabant, as the dukes of Lower Lorraine came to be called.

Upper Lorraine.—The duchy of Upper Lorraine, or Lorraine *Mosellana*, to which the name of Lorraine was restricted from the 11th century, consisted of a tract of undulating country watered by the upper course of the Meuse and Moselle, and bounded N. by the Ardennes, S. by the table-land of Langres, E. by the Vosges and W. by Champagne. Its principal fiefs were the countship of Bar which Otto the Great gave in 951 to Count Frederick of Ardenne, and which passed in 1093 to the lords of Montbéliard; the countship of Chiny, formed at the end of the 10th century, of which, since the 13th, Montmédy was the capital; the lordship of Commercy, whose rulers bore the special title of *damoiseau*, and which passed in the 13th century to the house of Saarebrücken; and, finally the three important ecclesiastical lordships of the bishops of Metz, Toul and Verdun. Theodoric, or Thierri (d. 1026), son of Frederick, count of Bar and first duke of Upper Lorraine, was involved in a war with the emperor Henry II., a war principally remarkable for the siege of Metz (1007). After having been the object of numerous attempts on the part of the dukes of Lower Lorraine, Upper Lorraine was given by the emperor Henry III. to Albert of Alsace, and passed in 1048 to Albert's brother Gerard, who died by poison in 1069, and who was the ancestor of the hereditary house of Lorraine. Until the 15th century the representatives of the hereditary house were Theodoric II., called the Valiant (1069-1115), Simon (1115-1139), Matthew (1139-1176), Simon II. (1176-1205), Ferri I. (1205-1206), Ferri II. (1206-1213), Theobald (Thibaut) I. (1213-1220), Matthew II. (1220-1251), Ferri III. (1251-1304), Theobald II. (1304-1312), Ferri IV., called the Struggler (1312-1328), Rudolph, or Raoul (1328-1346), John (1346-1391) and Charles II. or I., called the Bold (1391-1431). The 12th century and the first part of the 13th were occupied with wars against the counts of Bar and Champagne. Theobald I. intervened in Champagne to support Erard of Brienne against the young count Theobald IV. The regent of Champagne, Blanche of Navarre, succeeded in forming against the duke of Lorraine a coalition consisting of the count of Bar and the emperor Frederick II., who had become embroiled with Theobald over the question of Rosheim in Alsace. Attacked by the emperor, the duke of Lorraine was forced at the treaty of Amance (1218) to acknowledge himself the vassal of the count of Champagne, and to support the count in his struggles against his ancient ally the count of Bar. The long government of Ferri III. was mainly occupied with wars against the feudal lords and the bishop of Metz, which resulted in giving an impulse to the municipal movement through Ferri's attempt to use the movement as a weapon against the nobles. The majority of the municipal charters of Lorraine were derived from the charter of Beaumont in Argonne, which was at first extended to the Barrois and was granted by Ferri, in spite of the hostility of his barons, to La Neuveville in 1257, to Frouard in 1263 and to Lunéville in 1265. In the church lands the bishops of Toul and Metz granted liberties from the end of the 12th century to the communes in their lordship, but not the Beaumont charter, which, however, obtained in the diocese of Verdun in the 14th and 15th centuries.

By the will of Duke Charles the Bold, Lorraine was to pass to his daughter Isabella, who married René of Anjou, duke of Bar, in 1420. But Anthony of Vaudemont, Charles's nephew and heir male, disputed this succession with René, who obtained from the king of France an army commanded by Arnault Guilhem de Barbazan. René, however, was defeated and taken prisoner at the battle of Bulgnéville, where Barbazan was killed (2nd of July 1431). The negotiations between René's wife and Anthony had no result, in spite of the intervention of the council of Basel and the emperor Sigismund, and it was not until 1436 that René obtained his liberty by paying a ransom of 200,000 crowns, and was enabled to dispute with Alfonso of Aragon the kingdom of Naples, which he had inherited in the previous year. In 1444 Charles VII. of France and the dauphin Louis went to Lorraine, accompanied by envoys from Henry VI. of England, and procured a treaty (confirmed at Chalons in 1445), by which Yolande, René's eldest daughter, married Anthony's son, Ferri of Vaudemont, and René's second daughter Margaret became the wife of Henry VI. of England. After his return to Lorraine in 1442, René was seldom in the duchy. Like his successor John, duke of Calabria, who died in 1470, he was continually occupied with expeditions in Italy or in Spain. John's son and successor, Nicholas (d. 1473), who supported the duke of Burgundy, Charles the Bold, against the king of France, died without children, and his heir was René, son of Frederick of Vaudemont. The duke of Burgundy, however, disputed this inheritance, and carried off the young René and his mother, but on the intervention of Louis XI. had to set them at liberty. René helped the Swiss during their wars with Charles the Bold, who invaded Lorraine and was killed under the walls of Nancy (1477). René's last years were mainly spent in expeditions in Provence and Italy. He died in 1508, leaving by his second wife three sons—Anthony, called the Good, who succeeded him; Claude, count (and afterwards duke) of Guise, the ancestor of the house of Guise; and John (d. 1550), known as the cardinal of Lorraine. Anthony, who was declared of age at his father's death by the estates of Lorraine, although his mother had tried to seize the power as regent, had been brought up from the age of twelve at the French court, where he became the friend of Louis XII., whom he accompanied on his Italian expeditions. In 1525 he had to defend Lorraine against the revolted Alsatian peasants known as *rustauds* (boors), whom he defeated at Lupstein and Scherweiler; and he succeeded in maintaining a neutral position in the struggle between Francis I. of France and the emperor Charles V. He died on the 14th of June 1544, and was succeeded by his son Francis I., who died of apoplexy (August 1545) at the very moment when he was negotiating peace between the king of France and the emperor.

Lorraine in Modern Times.—Francis's son Charles III. or II., called the Great, succeeded under the tutelage of his mother and Nicholas of Vaudemont, bishop of Metz. Henry II. of France took this opportunity to invade Lorraine, and in 1552 seized the three bishoprics of Metz, Toul and Verdun. In the same year the emperor laid siege to Metz, but was forced to retreat with heavy loss before the energetic resistance of Duke Francis of Guise. On leaving Lorraine, Henry II. took Charles to France, brought him up at the court and married him to his daughter Claude. After the accession of Francis II., the young duke returned to Lorraine, and, while his cousins the Guises endeavoured to make good the claims of the house of Lorraine to the crown of France by virtue of its descent from the Carolingians through Charles, the son of Louis d'Outremer, he devoted himself mainly to improving the administration of his duchy. He reconstituted his domain by revoking the alienations irregularly granted by his predecessors, instructed his *chambre des comptes* to institute inquiries on this subject, and endeavoured to ameliorate the condition of industry and commerce by reorganizing the working of the mines and saltworks, unifying weights and measures and promulgating edicts against vagabonds. His duchy suffered considerably from the passage of German bands on their way to help the Protestants in France, and also from disturbances caused by the progress of Calvinism, especially in the neighbourhood of the three bishoprics. To combat Calvinism Charles had recourse to the Jesuits, whom he established at Pont-à Mousson, and to whom he gave over the university he had founded in that town in 1572. To this foundation he soon added chairs of medicine and law, the first professor of civil law being the *maître des requêtes*, the Scotsman William Barclay, and the next Gregory of Toulouse, a pupil of the jurist Cujas. Charles died on the 14th of May 1608, and was succeeded by his eldest son Henry II., called the Good, who rid Lorraine of the German bands and died in 1624 without issue.

Henry was succeeded by his brother Francis II., who abdicated on the 26th of November 1624 in favour of his son Charles IV. or III. At the beginning of the reign of Louis XIII. Charles embroiled himself with France by harbouring French malcontents. Louis entered Lorraine, and by the treaty of Vic (31st of December 1631) bound over Charles to desist from supporting the enemies of France, and compelled him to cede the fortress of Marsal. Charles's breach of this treaty led to a renewal of hostilities, and the French troops occupied St Mihiel, Bar-le-duc, Pont-à-Mousson and Nancy, which the duke was forced to cede for four years (1633). In 1632, by the treaty of Liverdun, he had already had to abandon the fortresses of Stenay and Clermont in Argonne. On the 19th of January 1634 he abdicated in favour of his younger brother Francis Nicholas, cardinal of Lorraine, and withdrew to Germany, the parlement of Paris declaring him guilty of rebellion and confiscating his estates. After vain attempts to regain his estates with the help of the emperor, he decided to negotiate with France; and the treaty of St Germain (29th of March 1641) re-established him in his duchy on condition that he should cede Nancy, Stenay and other fortresses until the general peace. This treaty he soon broke, joining the Imperialists in the Low Countries and defeating the French at Tuttlingen (December 1643). He was restored, however, to his estates in 1644, and took part in the wars of the Fronde. He was arrested at Brussels in 1654, imprisoned at Toledo and did not recover his liberty until the peace

of the Pyrenees in 1659. On the 28th of February 1661 the duchies of Lorraine and Bar were restored to him by the treaty of Vincennes, on condition that he should demolish the fortifications of Nancy and cede Clermont, Saarburg and Pfalzburg. In 1662 Hugues de Lionne negotiated with him the treaty of Montmartre, by which Charles sold the succession to the duchy to Louis XIV. for a life-rent; but the Lorrainers, perhaps with the secret assent of their prince, refused to ratify the treaty. Charles, too, was accused of intriguing with the Dutch, and was expelled from his estates, Marshal de Créqui occupying Lorraine. He withdrew to Germany, and in 1673 took an active part in the coalition of Spain, the Empire and Holland against France. After an unsuccessful invasion of Franche-Comté he took his revenge by defeating Créqui at Conzer Brücke (11th of August 1675) and forcing him to capitulate at Trier. On the 18th of September 1675 died this adventurous prince, who, as Voltaire said, passed his life in losing his estates. His brother Francis, in favour of whom he had abdicated, was a cardinal at the age of nineteen and subsequently bishop of Toul, although he had never taken orders. He obtained a dispensation to marry his cousin, Claude of Lorraine, and died in 1670. He had one son, Charles, who in 1675 took the title of duke of Lorraine and was recognized by all the powers except France. After an unsuccessful attempt to seize Lorraine in 1676, Charles vainly solicited the throne of Poland, took an active part in the wars in Hungary, and married Eleanor of Austria, sister of the emperor Leopold I., in 1678. At the treaty of Nijmwegen France proposed to restore his estates on condition that he should abandon a part of them; but Charles refused, and passed the rest of his life in Austria, where he took part in the wars against the Turks, whom he defeated at Mohacz (1687). He died in 1690.

Leopold, Charles's son and successor, was restored to his estates by the treaty of Ryswick (1697), but had to dismantle all the fortresses in Lorraine and to disband his army with the exception of his guard. Under his rule Lorraine flourished. While diminishing the taxes, he succeeded in augmenting his revenues by wise economy. The population increased enormously during his reign—that of Nancy, for instance, almost trebling itself between the years 1699 and 1735. Leopold welcomed French immigrants, and devoted himself to the development of commerce and industry, particularly to the manufacture of stuffs and lace, glass and paper. He was responsible, too, for the compilation of a body of law which was known as the "Code Léopold." Some time after his death, which occurred on the 27th of March 1729, his heir Francis III. was betrothed to Maria Theresa of Austria, the daughter and heiress of the emperor Charles VI. France, however, could not admit the possibility of a union of Lorraine with the Empire; and in 1735, at the preliminaries of Vienna, Louis XV. negotiated an arrangement by which Francis received the duchy of Tuscany, which was vacant by the death of the last Medici, in exchange for Lorraine, and Stanislaus Leszczynski, the dethroned king of Poland and father-in-law of Louis XV., obtained Lorraine, which after his death would pass to his daughter—in other words, to France. These arrangements were confirmed by the treaty of Vienna (18th of November 1738). In 1736, by a secret agreement, Stanislaus had abandoned the financial administration of his estates to Louis XV. for a yearly subsidy. The intendant, Chaumont de la Galaizière, was instructed to apply the French system of taxation in Lorraine; and in spite of the severity of the administration Lorraine preserved a grateful memory of the good king Stanislaus, who held his brilliant little court at Lunéville, and founded an academy and several libraries and hospitals. At his death in February 1766 the two duchies of Lorraine and Bar became definitively incorporated in the kingdom of France. The treaties of 1735 and 1736, however, guaranteed their legislation, the privileges enjoyed by the three orders, and their common law and customs tariffs, which they retained until the French Revolution. Lorraine and Barrois formed a large government corresponding, together with the little government of the three bishoprics, to the *intendance* of Lorraine and the *généralité* of Metz. For legal purposes, Metz had been the seat of a parlement since 1633, and the parlement of Nancy was created in 1776. There was, too, a *chambre des comptes* at Metz, and another at Bar-le-duc. (For the later history see Alsace-Lorraine.)

See Dom. A. Calmet, *Histoire ecclésiastique et civile de Lorraine* (2nd ed., Nancy, 1747-1757); A. Digot, *Histoire de Lorraine* (1879-1880); E. Huhn, *Geschichte Lothringens* (Berlin, 1877); R. Parisot, *Le Royaume de Lorraine sous les Carolingiens* (Paris, 1899); Comte D'Haussonville, *Histoire de la réunion de la Lorraine à la France* (2nd ed., Paris, 1860); E. Bonvalot, *Histoire du droit et des institutions de la Lorraine et des Trois-Évêchés* (Paris, 1895); and E. Duvernoy, *Les États Généraux des duchés de Lorraine et de Bar jusqu'à la majorité de Charles III.* (Paris, 1904).

(R. Po.)

LORTZING, GUSTAV ALBERT (1801-1851), German composer, was born at Berlin on the 23rd of October 1801. Both his parents were actors, and when he was nineteen the son began to play youthful lover at the theatres of Düsseldorf and Aachen, sometimes also singing in small tenor or baritone parts. His first opera *Ali Pascha von Jannina* appeared in 1824, but his fame as a musician rests chiefly upon the two operas *Der Wildschütz* (1842) and *Czar und Zimmermann* (1837). The latter, although now regarded as one of the masterpieces of German comic opera, was received with little enthusiasm by the public of Leipzig. Subsequent performance in Berlin, however, provoked such a tempest of applause that the opera was soon placed on all the stages of Germany. It was translated into English, French, Swedish, Danish, Dutch, Bohemian, Hungarian and Russian. *Der Wildschütz* was based on a comedy of Kotzebue, and was a satire on the unintelligent and exaggerated admiration for the highest beauty in art expressed by the *bourgeois gentilhomme*. Of his other operas it is only necessary to note *Der Pole und sein Kind*, produced shortly after the Polish insurrection of 1831, and *Undine* (1845). Lortzing died at Berlin on the 21st of January 1851.

LORY, CHARLES (1823-1889), French geologist, was born at Nantes on the 30th of July 1823. He graduated *D. ès Sc.* in 1847; in 1852 he was appointed to the chair of geology at the University of Grenoble, and in 1881 to that of the *École Normale Supérieure* in Paris. He was distinguished for his researches on the geology of the French Alps, being engaged on the geological survey of the departments of Isère, Drôme and the Hautes Alpes, of which he prepared the maps and explanatory memoirs. He dealt with some of the disturbances in the Savoy Alps, describing the fan-like structures, and confirming the views of J. A. Favre with regard to the overthrows, reversals and duplication of the strata. His contributions to geological literature include also descriptions of the fossils and stratigraphical divisions of the Lower Cretaceous and Jurassic rocks of the Jura. He died at Grenoble on the 3rd of May 1889.

LORY (a word of Malayan origin signifying parrot, in general use with but slight variation of form in many European languages), the name of certain birds of the order *Psittaci*, mostly from the Moluccas and New Guinea, remarkable for their bright scarlet or crimson colouring, though also, and perhaps subsequently, applied to some others in which the plumage is chiefly green. The lories have been referred to a considerable number of genera, of which *Lorius* (the *Domicella* of some authors), *Eos* and *Chalcopsittacus* may be here particularized, while under the name of "lorikeets" may be comprehended such genera as *Trichoglossus*, *Charmosyna*, *Loriculus* and *Coriphilus*. By most systematists some of these forms have been placed far apart, even in different families of *Psittaci*, but A. H. Garrod has shown (*Proc. Zool. Society*, 1874, pp. 586-598, and 1876, p. 692) the many common characters they possess, which thus goes some way to justify the relationship implied by their popular designation. A full account of these birds is given in the first part of Count T. Salvadori's *Ornitologia della Papuasia e delle Molucche* (Turin 1880), whilst a later classification appeared in Salvadori's section of the British Museum *Catalogue of Birds*, xx., 1891.

Though the name lory has often been used for the species of *Eclectus*, and some other genera related thereto, modern writers would restrict its application to the birds of the genera *Lorius*, *Eos*, *Chalcopsittacus* and their near allies, which are often placed in a subfamily, *Loriinae*, belonging to the so-called family of *Trichoglossidae* or "brush-tongued" parrots. Garrod in his investigations on the anatomy of *Psittaci* was led not to attach much importance to the structure indicated by the epithet "brush-tongued" stating (*Proc. Zool. Society*, 1874, p. 597) that it "is only an excessive development of the papillae which are always found on the lingual surface." The birds of this group are very characteristic of the New Guinea subregion,[1] in which occur, according to Count Salvadori, ten species of *Lorius*, eight of *Eos* and four of *Chalcopsittacus*; but none seem here to require any further notice,[2] though among them, and particularly in the genus *Eos*, are included some of the most richly-coloured birds in the whole world; nor does it appear that more need be said of the lorikeets.

The family is the subject of an excellent monograph by St George Mivart (London, 1896).

(A. N.)

1 They extend, however, to Fiji, Tahiti and Fanning Island.

2 Unless it be *Oreopsittacus arfaki*, of New Guinea, remarkable as the only parrot known as yet to have fourteen instead of twelve rectrices.

LOS ANDES, a former state of Venezuela under the redivision of 1881, which covered the extreme western part of the republic N. of Zamora and S. of Zulia. In the redivision of 1904 Los Andes was cut up into three states—Mérida Táchira and Trujillo.

LOS ANGELES, a city and the county-seat of Los Angeles county, in southern California, U.S.A., along the small Los Angeles river, in the foothills of the San Gabriel Mountains; a narrow strip, 18 m. long, joins the main part of the city to its water front on the ocean, San Pedro Bay. Pop. (1880) 11,183, (1890) 50,395, (1900) 102,479, of whom 19,964 were foreign-born;[1] the growth in population since 1900 has been very rapid and in 1910 it was 319,198. The city had in 1910 an area of 85.1 sq. m., of which more than one-half has been added since 1890. Los Angeles is served by the Southern Pacific, the Atchison, Topeka & Santa Fé, and the San Pedro, Los Angeles & Salt Lake railways; by steamers to San Francisco; and by five systems of urban and suburban electric railways, which have 300 m. of track within the city and 700 m. within a radius of 30 m. beyond its limits. Inclined railways ascend Third Street Hill and Court Street Hill, in the heart of the city; and a system of subways extends from the centre of the city to its western limits. The harbour, San Pedro Bay, originally open and naturally poor, has been greatly improved by the Federal government; a breakwater 9250 ft. long was begun in 1898 and the bar has been deepened, and further improvements of the inner harbour at Wilmington (which is nearly landlocked by a long narrow island lying nearly east and west across its mouth) were begun in 1907. Important municipal docks have been built by the city.

The situation of the city between the mountains and the sea is attractive. The site of the business district is level, and its plan regular; the suburbs are laid out on hills. Although not specifically a health resort, Los Angeles enjoys a high reputation for its climate. From July 1877 to 1908 (inclusive) the mean of the minima for January, the coldest month of the year, was 44.16° F.; the mean of the minima for August, the warmest month, was 60.1° F.; and the difference of the mean temperature of the coldest and the warmest month was about 18° F.; while on five days only in this period (and on no day in the years 1904-1908) did the official thermometer fall below 32° F. There are various pleasure resorts in the mountains, and among seaside resorts are Santa Monica, Ocean Park, Venice, Playa del Rey, Hermosa, Redondo, Terminal Island, Long Beach, Alamitos Bay, Huntington Beach, Newport, Balboa and Corona del Mar. There are excellent roads throughout the country. Los Angeles has beautiful shade trees and a wealth of semi-tropic vegetation. Its residential portions are characterized by detached homes set in ample and beautiful grounds. Towering eucalyptus, graceful pepper trees, tropic palms, rubber trees, giant bananas, yuccas and a wonderful growth of roses, heliotrope, calla lilies in hedges, orange trees, jasmine, giant geraniums and other flowers beautify the city throughout the year. There are 22 parks, with about 3800 acres within or on the borders of the city limits; among the parks are Griffith (3015 acres), Elysian (532 acres), Eastlake (57 acres), Westlake (35 acres) and Echo (38 acres). The old Spanish-Moorish mission architecture has considerably influenced building styles. Among the important buildings are the Federal Building, the County Court House, the City Hall, a County Hall of Records, the Public Library with about 110,000 volumes in 1908, the large Auditorium and office buildings and the Woman's Club. The exhibit in the Chamber of Commerce Building illustrates the resources of southern California. Here also are the Coronel Collection, given in 1901 by Dona Mariana, the widow of Don Antonio Coronel, and containing relics of the Spanish and Mexican régime in California; and the Palmer Collection of Indian antiquities. In Los Angeles also are the collections of the Southwest Society (1904; for southern California, Arizona and New Mexico) of the Archaeological Institute of America. On the outskirts of the city, near Eastlake Park, is the Indian Crafts Exhibition, which contains rare collections of aboriginal handiwork, and where Indians may be seen making baskets, pottery and blankets. Of interest to visitors is that part of the city called Sonora Town, with its adobe houses, Mexican quarters, old Plaza and the Church of Our Lady, Queen of the Angels (first erected in 1822; rebuilt in 1861), which contains interesting paintings by early Indian converts. Near Sonora Town is the district known as Chinatown. The principal educational institutions are the University of Southern California (Methodist Episcopal, 1880), the Maclay College of Theology and a preparatory school; Occidental College (Presbyterian, 1887), St Vincent's College (Roman Catholic, founded 1865; chartered 1869) and the Los Angeles State Normal School (1882).

The economic interests of Los Angeles centre in the culture of fruits. The surrounding country is very fertile when irrigated, producing oranges, lemons, figs and other semi-tropical fruits. Thousands of artesian wells have been bored, the region between Los Angeles, Santa Clara and San Bernardino being one of the most important artesian well regions of the world. The city, which then got its water supply from the Los Angeles river bed, in 1907 authorized the issue of $23,000,000 worth of 4% bonds for the construction of an aqueduct 209 m. long, bringing water to the city from the Owens river, in the Sierra Nevada Mountains. It was estimated that the project would furnish water for one million people, beside supplying power for lighting, manufacturing and transportation purposes. All the water in excess of the city's actual needs may be employed for irrigation. Work on the aqueduct was begun in 1908, and it was to be completed in five years. From 1900 to 1905 the value of the factory products increased from $15,133,696 to $34,814,475 or 130%, and the capital employed in manufactures from $10,045,095 to $28,181,418 or 180.5%. The leading manufacturing industries in 1905, with the product-value of each in this year, were slaughtering and meat-packing ($4,040,162), foundry and machine shop work ($3,146,914), flour and grist milling ($2,798,740), lumber manufacturing and planing ($2,519,081), printing and publishing (newspapers and periodicals, $2,097,339; and book and job printing, $1,278,841), car construction and repairing ($1,549,836)—in 1910 there were railway shops here of the Southern Pacific, Pacific Electric, Los Angeles Street, Salt Lake and Santa Fé railways—and the manufacture of confectionery ($953,915), furniture ($879,910) and malt liquors ($789,393). The canning and preserving of fruits and vegetables are important industries. There is a large wholesale trade with southern California, with Arizona and with the gold-fields of Nevada, with which Los Angeles is connected by railway. Los Angeles is a port of entry, but its foreign commerce is relatively unimportant. The value of its imports increased from $721,705 in 1905 to $1,654,549 in 1907; in 1908 the value was $1,193,552. The city's exports were valued at $45,000 in 1907 and at $306,439 in 1908. The coastwise trade is in lumber (about 700,000,000 ft. annually), shipped from northern California, Oregon and Washington, and in crude oil and general merchandise. There are rich oil-fields N. and W. of the city and wells throughout the city; petroleum is largely employed as fuel in factories. The central field, the Second Street Park field in the city, was developed between 1892 and 1895 and wells were drilled farther E. until in 1896 the eastern field was tapped with wells at Adobe and College streets; the wells within the city are gradually being abandoned. The western field and the western part of the central field were first worked in 1899-1900. The Salt Lake field, controlled by the Salt Lake Oil Company, near Rancho de Brea, W.S.W. of the city, first became important in 1902 and in 1907 it was the most valuable field in California, S. of Santa Barbara county, and the value of its product was $1,749,980. In 1905 the value of petroleum refined in Los Angeles was $461,281.

Land has not for many years been cheap (*i.e.* absolutely) in the southern Californian fruit country, and immigration has been, generally, of the comparatively well-to-do. This fact has greatly affected the character and development of the city. The assessed valuation of property increased more than threefold from 1900 to 1910, being $276,801,517 in the latter year, when the bonded city debt was $17,259,312.50. Since 1896 there has been a strong independent movement in politics, marked by the organization of a League for Better City Government (1896) and a Municipal League (1900), and by the organization of postal primaries to secure the co-operation of electors pledged to independent voting. Since 1904 the public school system has been administered by a non-partisan Board of Education chosen from the city at large, and not by wards as theretofore.

Los Angeles, like all other Californian cities, has the privilege of making and amending its own charter, subject to the approval of the state legislature. In 1902 thirteen amendments were adopted, including provisions for the initiative, the referendum and the recall. The last of these provides that 25% of the voters choosing a municipal officer may, by signing a petition for his recall, force a new election during his term of office and thereby remove him if another candidate receives a greater number of votes. This provision, introducing an entirely new principle into the American governmental system, came into effect in January 1903, and was employed in the following year when a previously elected councilman who was "recalled" by petition and was unsuccessful in the 1904 election brought suit to hold his office, and on a mere technicality the Supreme Court of the state declared the recall election invalid. In 1909 there was a recall election at which a mayor was removed and another chosen in his place.

The Pueblo de Nuestra Señora la Reina de los Angeles was founded in 1781. The Franciscan mission of San Gabriel—still a famous landmark—had been established ten years earlier a few miles eastward. Beginning about 1827, Los Angeles, being the largest pueblo of the territory, became a rival of Monterey for the honour of being the capital of California, was the seat of conspiracies to overthrow the Mexican authority, and the stronghold of the South California party in the bickerings and struggles that lasted down to the American occupation. In 1835 it was made a city by the Mexican Congress, and declared the capital, but the last provision was not enforced and was soon recalled. In 1836-1838 it was the headquarters of C. A. Carrillo, a legally-named but never *de facto* governor of California, whose jurisdiction was never recognized in the north; and in 1845-1847 it was the actual capital. The city was rent by factional quarrels when war broke out between Mexico and the United States, but the appearance of United States troops under Commodore Robert F. Stockton and General John C. Frémont before Los Angeles caused both factions to unite against a common foe. The defenders of Los Angeles fled at the approach of the troops, and on the 13th of August 1846 the American flag was raised over the city. A garrison of fifty men, left in control, was compelled in October to withdraw on account of a revolt of the inhabitants, and Los Angeles was not retaken until General Philip Kearny and Commodore Stockton entered the city on the 18th of January 1847. This was the only important overt resistance to the establishment of the new régime in California. The city was chartered in 1850. It continued to grow steadily thereafter until it attained railway connexion with the Central Pacific and San Francisco in 1876, and with the East by the Santa Fé system in 1885. The completion of the latter line precipitated one of the most extraordinary of American railway wars and land booms, which resulted in giving southern California a great stimulus. The growth of the city since 1890 has been even more remarkable. In 1909 the township of Wilmington (pop. in 1900, 2983), including the city of San Pedro (pop. in 1900, 1787), Colegrove, a suburb W.N.W. of the city, Cahuenga (pop. in 1900, 1586), a township N.W. of the former city limits, and a part of Los Feliz were annexed to the city.

1 In addition to the large foreign-born population (4023 Germans, 3017 English, 2683 English Canadians, 1885 Chinese, 1720 Irish and smaller numbers of French, Mexicans, Swedes, Italians, Scots, Swiss, Austrians, Danes, French Canadians, Russians, Norwegians, Welsh and Japanese) 26,105 of the native white inhabitants were of foreign parentage (*i.e.* had one or both parents not native born), so that only 54,121 white persons were of native parentage. German, French and Italian weekly papers are published in Los Angeles.

LOS ISLANDS (Islas de los Idolos), a group of islands off the coast of French Guinea, West Africa, lying south of Sangarea Bay, between 9° 25′ and 9° 31′ N. and 13° 46′ and 13° 51′ W., and about 80 m. N.N.W. of Freetown, Sierra Leone. There are five principal islands: Tamara, Factory, Crawford, White (or Ruma) and Coral. The two largest islands are Tamara and Factory, Tamara, some 8 m. long by 1 to 2 m. broad, being the largest. These two islands lie parallel to each other, Tamara to the west; they form a sort of basin, in the centre of which is the islet of Crawford. The two other islands are to the south. The archipelago is of volcanic formation, Tamara and Factory islands forming part of a ruined crater, with Crawford Island as the cone. The highest point is a knoll, some 450 ft. above sea-level, in Tamara. All the islands are richly clothed with palm trees and flowering underwood. Tamara has a good harbour, and contains the principal settlement. The inhabitants, about 1500, are immigrants of the Baga tribe of Senegambian negroes, whose home is the coast land between the Pongo and Nunez rivers. These are chiefly farmers. The Church of England has a flourishing mission, with a native pastorate. At one time the islands were a great seat of slave-traders and pirates. The latter are supposed to have buried large amounts of treasure in them. In an endeavour to stop the slave trade and piracy, the islands were garrisoned (1812-1813) by British troops, but the

unhealthiness of the climate led to their withdrawal. In 1818 Sir Charles McCarthy, governor of Sierra Leone, obtained the cession of the islands to Great Britain from the chiefs of the Baga country, and in 1882 France recognized them to be a British possession. They were then the headquarters of several Sierra Leone traders. By article 6 of the Anglo-French convention of the 8th of April 1904, the islands were ceded to France. They were desired by France because of their geographical position, Konakry, the capital of French Guinea, being built on an islet but 3 m. from Factory Island, and at the mercy of long range artillery planted thereon. The islands derive their name from the sacred images found on them by the early European navigators.

See A. B. Ellis, *West African Islands* (London, 1885), and the works cited under FRENCH GUINEA.

LOSSIEMOUTH, a police burgh of Elginshire, Scotland. Pop. (1901) 3904. It embraces the villages of Lossiemouth, Branderburgh and Stotfield, at the mouth of the Lossie, 5½ m. N.N.E. of Elgin, of which it is the port, by a branch line of the Great North of Scotland railway. The industries are boat-building and fishing. Lossiemouth, or the Old Town, dates from 1700; Branderburgh, farther north, grew with the harbour and began about 1830; Stotfield is purely modern and contiguous to the splendid golf-course. The cliffs at Covesea, 2 m. W., contain caves of curious shape. Sir Robert Gordon of Gordonstown used one as a stable in the rebellion of 1745; weapons of prehistoric man were found in another, and the roof of a third is carved with ornaments and emblems of early Celtic art.

Kinneddar Castle in the parish of Drainie—in which Lossiemouth is situated—was a seat of the bishops of Moray, and Old Duffus Castle, 2½ m. S.W., was built in the reign of David II. The estate of Gordonstown, close by, was founded by Sir Robert Gordon (1580-1656), historian of the Sutherland family, and grandfather of the baronet who, because of his inventions and scientific attainments, was known locally as “Sir Robert the Warlock” (1647-1704). Nearly midway between Lossiemouth and Elgin stand the massive ruins of the palace of Spynie, formerly a fortified residence of the bishops of Moray. “Davie’s Tower,” 60 ft. high with walls 9 ft. thick, was built by Bishop David Stewart about 1470. The adjacent loch is a favourite breeding-place for the sea-birds, which resort to the coast of Elginshire in enormous numbers. A mile S.E. of the lake lies Pitgaveny, one of the reputed scenes of the murder of King Duncan by Macbeth.

LOSSING, BENSON JOHN (1813-1891), American historical writer, was born in Beekman, New York, on the 12th of February 1813. After editing newspapers in Poughkeepsie he became an engraver on wood, and removed to New York in 1839 for the practice of his profession, to which he added that of drawing illustrations for books and periodicals. He likewise wrote or edited the text of numerous publications. His *Pictorial Field-Book of the Revolution* (first issued in 30 parts, 1850-1852, and then in 2 volumes) was a pioneer work of value in American historical literature. In its preparation he travelled some 9000 m. during a period of nearly two years; made more than a thousand sketches of extant buildings, battlefields, &c.; and presented his material in a form serviceable to the topographer and interesting to the general reader. Similar but less characteristic and less valuable undertakings were a *Pictorial Field-Book of the War of 1812* (1868), and a *Pictorial History of the Civil War in the United States of America* (3 vols. 1866-1869). His other books were numerous: an *Outline History of the Fine Arts*; many illustrated histories, large and small, of the United States; popular descriptions of Mount Vernon and other localities associated with famous names; and biographical sketches of celebrated Americans, of which *The Life and Times of Major-General Philip Schuyler* (2 vols. 1860-1873) was the most considerable. He died at Dover Plains, New York, on the 3rd of June 1891.

LÖSSNITZ, a district in the kingdom of Saxony, extending for about 5 m. along the right bank of the Elbe, immediately N.W. of Dresden. Pop. (1905) 6929. A line of vine-clad hills shelters it from the north winds, and so warm and healthy is the climate that it has gained for the district the appellation of the “Saxon Nice.” Asparagus, peaches, apricots, strawberries, grapes and roses are largely cultivated and find a ready market in Dresden.

LOST PROPERTY. The man who loses an article does not lose his right thereto, and he may recover it from the holder whoever he be, unless his claim be barred by some Statute of Limitations or special custom, as sale in market overt. The rights and duties of the finder are more complex. If he know or can find out the true owner, and yet convert the article to his own use, he is guilty of theft. But if the true owner cannot be discovered, the finder keeps the property, his title being superior to that of every one except the true owner. But this is only if the find be in public or some public place. Thus if you pick up bank notes in a shop where they have been lost by a stranger, and hand them to the shopkeeper that he may discover and repossess the true owner, and he fail to do so, then you can recover them from him. The owner of private land, however, is entitled to what is found on it. Thus a man sets you to clear out his pond, and you discover a diamond in the mud at the bottom. The law will compel you to hand it over to the owner of the pond. This applies even against the tenant. A gas company were lessees of certain premises; whilst making excavations therein they came upon a prehistoric boat; and they were forced to surrender it to their lessor. An aerolite becomes the property of the owner of the land on which it falls, and not of the person finding or digging it out. The principle of these three last cases is that whatever becomes part of the soil belongs to the proprietor of that soil.

Property lost at sea is regulated by different rules. Those who recover abandoned vessels are entitled to salvage. Property absolutely lost upon the high seas would seem to belong to the finder. It has been claimed for the crown, and the American

courts have held, that apart from a decree the finder is only entitled to salvage rights, the court retaining the rest, and thus practically taking it for the state on the original owner not being found. The modern English law on the subject of wreck (including everything found on the shore of the sea or tidal river) is contained in the Merchant Shipping Act 1894. The finder must forthwith make known his discovery to the receiver of wreck under a penalty. He is entitled to a salvage reward, but the property belongs to the crown or its grantee unless the true owner claims within a year. In the United States unclaimed wreck after a year generally becomes the property of the state. In Scotland the right to lost property is theoretically in the crown, but the finder would not in practice be interfered with except under the provisions of the Burgh Police (Scotland) Act 1892. Section 412 requires all persons finding goods to deliver them forthwith to the police under a penalty. If the true owner is not discovered within six months the magistrates may hand them over to the finder. If the owner appears he must pay a reasonable reward. Domestic animals, including swans, found straying without an owner may be seized by the crown or lord of the manor, and if not claimed within a year and a day they become the property of the crown or the lord, on the observance of certain formalities. In Scotland they were held to belong to the crown or its donatory, usually the sheriff of a county. By the Burgh Police Act above quoted provision is made for the sale of lost animals and the disposal of the free proceeds for the purposes of the act unless such be claimed. In the United States there is diversity of law and custom. Apart from special rule, lost animals become the property of the finder, but in many cases the proceeds of their sale are applied to public purposes. When property is lost by carriers, innkeepers or railway companies, special provisions as to their respective responsibilities apply. As to finds of money or the precious metals, see Treasure Trove.

LOSTWITHIEL, a market town and municipal borough in the Bodmin parliamentary division of Cornwall, England, 30½ m. W. of Plymouth by the Great Western railway. Pop. (1901) 1379. It is pleasantly situated on the banks of the river Fowey. The church of St Bartholomew is remarkable for a fine Early English tower surmounted by a Decorated spire; there are also beautiful Decorated windows and details in the body of the church, and a richly carved octagonal font. A bridge of the 14th century crosses the river. The shire hall includes remains of a building, called the Stannary prison, dating from the 13th century. The Great Western railway has workshops at Lostwithiel.

Lostwithiel owed its ancient liberties—probably its existence—to the neighbouring castle of Restormel. The Pipe Rolls (1194-1203) show that Robert de Cardinan, lord of Restormel, paid ten marks yearly for having a market at Lostwithiel. By an undated charter still preserved with the corporation's muniments he surrendered to the burgesses all the liberties given them by his predecessors (*antecessores*) when they founded the town. These included hereditary succession to tenements, exemption from sullage, the right to elect a reeve (*praepositus*) if the grantor thought one necessary and the right to marry without the lord's interference. By Isolda, granddaughter of Robert de Cardinan, the town was given to Richard, king of the Romans, who in the third year of his reign granted to the burgesses a gild merchant sac and soc, toll, team and infangenethef, freedom from pontage, lastage, &c., throughout Cornwall, and exemption from the jurisdiction of the hundred and county courts, also a yearly fair and a weekly market. Richard transferred the assizes from Launceston to Lostwithiel. His son Edmund, earl of Cornwall, built a great hall at Lostwithiel and decreed that the coinage of tin should be at Lostwithiel only. In 1325 Richard's charter was confirmed and the market ordered to be held on Thursdays. In 1386 the assizes were transferred back to Launceston. In 1609 a charter of incorporation provided for a mayor, recorder, six capital burgesses and seventeen assistants and courts of record and pie powder. The boundaries of the borough were extended in 1733. Under the reformed charter granted in 1885 the corporation consists of a mayor, four aldermen and twelve councillors. From 1305 to 1832 two members represented Lostwithiel in parliament. The electors after 1609 were the twenty-five members of the corporation. Under the Reform Act (1832) the borough became merged in the county. For the Thursday market granted in 1326 a Friday market was substituted in 1733, and this continues to be held. The fair granted in 1326 and the three fairs granted in 1733 have all given place to others. The archdeacon's court, the sessions and the county elections were long held at Lostwithiel, but all have now been removed. For the victory gained by Charles I. over the earl of Essex in 1644, see Great Rebellion.

LOT, in the Bible, the legendary ancestor of the two Palestinian peoples, Moab and Ammon (Gen. xix. 30-38; cp. Ps. lxxxiii. 8); he appears to have been represented as a Horite or Edomite (cp. the name Lotan, Gen. xxxvi. 20, 22). As the son of Haran and grandson of Terah, he was Abraham's nephew (Gen. xi. 31), and he accompanied his uncle in his migration from Haran to Canaan. Near Bethel[1] Lot separated from Abraham, owing to disputes between their shepherds, and being offered the first choice, chose the rich fields of the Jordan valley which were as fertile and well irrigated as the "garden of Yahweh" (*i.e.* Eden, Gen. xiii. 7 sqq.). It was in this district that the cities of Sodom and Gomorrah were situated. He was saved from their fate by two divine messengers who spent the night in his house, and next morning led Lot, his wife, and his two unmarried daughters out of the city. His wife looked back and was changed to a pillar of salt,[2] but Lot with his two daughters escaped first to Zoar and then to the mountains east of the Dead Sea, where the daughters planned and executed an incest by which they became the mothers of Moab and Ben-Ammi (*i.e.* Ammon; Gen. xix.). The account of Chedorlaomer's invasion and of Lot's rescue by Abraham belongs to an independent source (Gen. xiv.), the age and historical value of which has been much disputed. (See further Abraham; Melchizedek.) Lot's character is made to stand in strong contrast with that of Abraham, notably in the representation of his selfishness (xiii. 5 sqq.), and reluctance to leave the sinful city (xix. 16 sqq.); relatively, however, he was superior to the rest (with the crude story of his insistence upon the inviolable rights of guests, xix. 5 sqq.; cf. Judges xix. 22 sqq.), and is regarded in 2 Pet. ii. 7 seq. as a type of righteousness.

Lot and his daughters passed into Arabic tradition from the Jews. The daughters are named Zahy and Ra'wa by Mas'ūdī ii. 139; but other Arabian writers give other forms. Paton (*Syria and Palestine*, pp. 43, 123) identifies Lot-Lotan with *Ruten*, one of the Egyptian names for Palestine; its true meaning is obscure. For traces of mythical elements in the story see Winckler, *Altorient. Forsch.* ii. 87 seq. See further, J. Skinner, *Genesis*, pp. 310 sqq.

(S. A. C.)

1 The district is thus regarded as the place where the Hebrews, on the one side, and the Moabites and Ammonites, on the other, commence their independent history. Whilst the latter settle across the Jordan, Abraham moves down south to Hebron.

2 Tradition points to the *Jebel Usdum* (cp. the name Sodom) at the S.W. end of the Dead Sea. It consists almost entirely of pure crystallized salt with pillars and pinnacles such as might have given rise to the story (see Driver, Genesis, p. 201; and cf. also *Palestine Explor. Fund, Quart. Statements*, 1871, p. 16, 1885, p. 20; Conder, *Syrian Stone-lore*, p. 279 seq.). Jesus cites the story of Lot and his wife to illustrate the sudden coming of the Kingdom of God (Luke xvii. 28-32). The history of the interpretation of the legend by the early and medieval church down to the era of rational and scientific investigation will be found in A. D. White, *Warfare of Science with Theology*, ii. ch. xviii.

LOT (Lat. *Oltis*), a river of southern France flowing westward across the central plateau, through the departments of Lozère, Aveyron, Lot and Lot-et-Garonne. Its length is about 300 m., the area of its basin 4444 sq. m. The river rises in the Cévennes on the Mont du Goulet at a height of 4918 ft. about 15 m. E. of Mende, past which it flows. Its upper course lies through gorges between the Causse of Mende and Aubrac Mountains on the north and the tablelands (*causses*) of Sauveterre, Severac and Comtal on the south. Thence its sinuous course crosses the plateau of Quercy and entering a wider fertile plain flows into the Garonne at Aiguillon between Agen and Marmande. Its largest tributary, the Truyère, rises in the Margeride mountains and after a circuitous course joins it on the right at Entraygues (department of Aveyron), its affluence more than doubling the volume of the river. Lower down it receives the Dourdou de Bozouls (or du Nord) on the left and on the right the Célé above Cahors (department of Lot), which is situated on a peninsula skirted by one of the river's many windings. Villeneuve-sur-Lot (department of Lot-et-Garonne) is the only town of any importance between this point and its mouth. The Lot is canalized between Bouquiès, above which there is no navigation, and the Garonne (160 m.).

LOT, a department of south-western France, formed in 1790 from the district of Quercy, part of the old province of Guyenne. It is bounded N. by Corrèze, W. by Dordogne and Lot-et-Garonne, S. by Tarn-et-Garonne, and E. by Aveyron and Cantal. Area 2017 sq. m. Pop. (1906) 216,611. The department extends over the western portion of the Massif Central of France; it slopes towards the south-west, and has a maximum altitude of 2560 ft. on the borders of Cantal with a minimum of 213 ft. at the point where the river Lot quits the department. The Lot, which traverses it from east to west, is navigable for the whole distance (106 m.) with the help of locks; its principal tributary within the department is the Célé (on the right). In the north of the department the Dordogne has a course of 37 m.; among its tributaries are the Cère, which has its rise in Cantal, and the Ouysse, a river of no great length, but remarkable for the abundance of its waters. The streams in the south of Lot all flow into the Tarn. The eastern and western portions of the department are covered by ranges of hills; the north, the centre, and part of the south are occupied by a belt of limestone plateaus or *causses*, that to the north of the Dordogne is called the Causse de Martel; between the Dordogne and the Lot is the Causse de Gramat or de Rocamadour; south of the Lot is the Causse de Cahors. The *causses* are for the most part bare and arid owing to the rapid disappearance of the rain in clefts and chasms in the limestone, which are known as *igues*. These are most numerous in the Causse de Gramat and are sometimes of great beauty; the best known is the Gouffre de Padirac, 7 m. N.E. of Rocamadour. The altitude of the *causses* (from 700 to 1300 ft., much lower than that of the similar plateaus in Lozère, Hérault and Aveyron) permits the cultivation of the vine; they also yield a small quantity of cereals and potatoes and some wood. The deep intervening valleys are full of verdure, being well watered by abundant springs. The climate is on the whole that of the Girondine region; the valleys are warm, and the rainfall is somewhat above the average for France. The difference of temperature between the higher parts of the department belonging to the central plateau and the sheltered valleys of the south-west is considerable. Wheat, maize, oats and rye are the chief cereals. Wine is the principal product, the most valued being that of Cahors grown in the valley of the Lot, which is, in general, the most productive portion of the department. It is used partly for blending with other wines and partly for local consumption. The north-east cantons produce large quantities of chestnuts; walnuts, apples and plums are common, and the department also grows potatoes and tobacco and supplies truffles. Sheep are the most abundant kind of live stock; but pigs, horned cattle, horses, asses, mules and goats are also reared, as well as poultry and bees. Iron and coal are mined, and there are important zinc deposits (Planioles). Limestone is quarried. There are oil-works and numerous mills, and wool spinning and carding as well as cloth making, tanning, currying, brewing and the making of agricultural implements are carried on to some extent. The three arrondissements are those of Cahors, the capital, Figeac and Gourdon; there are 29 cantons and 329 communes.

Lot belongs to the 17th military district, and to the *académie* of Toulouse, and falls within the circumscription of the court of appeal at Agen, and the province of the archbishop of Albi. It is served by the Orleans railway. Cahors, Figeac and Rocamadour are the principal places. Of the interesting churches and châteaux of the department, may be mentioned the fine feudal fortress at Castelnau occupying a commanding natural position, with an audience hall of the 12th century, and the Romanesque abbey-church at Souillac with fine sculpturing on the principal entrance. The plateau of Puy d'Issolu, near Vayrac, is believed by most authorities to be the site of the ancient Uxellodunum, the scene of the last stand of the Gauls against Julius Caesar in 51 B.C. Lot has many dolmens, the finest being that of Pierre Martine, near Livernon (arr. of Figeac).

LOT-ET-GARONNE, a department of south-western France, formed in 1790 of Agenais and Bazadais, two districts of the old province of Guienne, and of Condomois, Lomagne, Brullois and pays d'Albret, formerly portions of Gascony. It is bounded W. by Gironde, N. by Dordogne, E. by Lot and Tarn-et-Garonne, S. by Gers and S.W. by Landes. Area 2079 sq. m. Pop. (1906) 274,610. The Garonne, which traverses the department from S.E. to N.W., divides it into two unequal parts. That to the north is a country of hills and deep ravines, and the slope is from east to west, while in the region to the south, which is a continuation of the plateau of Lannemezan and Armagnac, the slope is directly from south to north. A small portion in the south-west belongs to the sterile region of the Landes (*q.v.*); the broad valleys of the Garonne and of its affluent the Lot are proverbial for their fertility. The wildest part is towards the north-east on the borders of Dordogne, where a region of *causses* (limestone plateaus) and forests begins; the highest point (896 ft.) is also found here. The Garonne, where it quits the department, is only some 20 ft. above the sea-level; it is navigable throughout, with the help of its lateral canal, as also are the Lot and Baise with the help of locks. The Drot, a right affluent of the Garonne in the north of the department, is also navigable in the lower part of its course. The climate is that of the Girondine region—mild and fine—the mean temperature of Agen being 56.6° Fahr., or 5° above that of Paris; the annual rainfall, which, in the plain of Agen, varies from 20 to 24 in., is nearly the least in France. Agriculturally the department is one of the richest. Of cereals wheat is the chief, maize and oats coming next. Potatoes, vines and tobacco are important sources of wealth. The best wines are those of Clairac and Buzet. Vegetable and fruit-growing are prosperous. Plum-trees (*pruniers d'ente*) are much cultivated in the valleys of the Garonne and Lot, and the apricots of Nicole and Tonneins are well known. The chief trees are the pine and the oak; the cork-oak flourishes in the Landes, and poplars and willows are abundant on the borders of the Garonne. Horned cattle, chiefly of the

Garonne breed, are the principal live stock. Poultry and pigs are also reared profitably. There are deposits of iron in the department. The forges, blast furnaces and foundries of Fumel are important; and agricultural implements and other machines are manufactured. The making of lime and cement, of tiles, bricks and pottery, of confectionery and dried plums (pruneaux d'Agen) and other delicacies, and brewing and distilling, occupy many of the inhabitants. At Tonneins (pop. 4691 in 1906) there is a national tobacco manufactory. Cork cutting, of which the centre is Mézin, hat and candle making, wool spinning, weaving of woollen and cotton stuffs, tanning, paper-making, oil-making, dyeing and flour and saw-milling are other prominent industries. The peasants still speak the Gascon patois. The arrondissements are 4—Agen, Marmande, Nérac and Villeneuve-sur-Lot—and there are 35 cantons and 326 communes.

Agen, the capital, is the seat of a bishopric and of the court of appeal for the department of Lot-et-Garonne. The department belongs to the region of the XVII. army corps, the *académie* of Bordeaux, and the province of the archbishop of Bordeaux. Lot-et-Garonne is served by the lines of the Southern and the Orleans railways, its rivers afford about 160 m. of navigable waterway, and the lateral canal of the Garonne traverses it for 54 m. Agen, Marmande, Nérac and Villeneuve-sur-Lot, the principal places, are treated under separate headings. The department possesses Roman remains at Mas d'Agenais and at Aiguillon. The churches of Layrac, Monsempron, Mas d'Agenais, Moirax, Mézin and Vianne are of interest, as also are the fortifications of Vianne of the 13th century, and the châteaux of Xaintrailles, Bonaguil, Gavaudun and of the industrial town of Casteljaloux.

LOTHAIR I. (795-855), Roman emperor, was the eldest son of the emperor Louis I., and his wife Irmengarde. Little is known of his early life, which was probably passed at the court of his grandfather Charlemagne, until 815 when he became ruler of Bavaria. When Louis in 817 divided the Empire between his sons, Lothair was crowned joint emperor at Aix-la-Chapelle and given a certain superiority over his brothers. In 821 he married Irmengarde (d. 851), daughter of Hugo, count of Tours; in 822 undertook the government of Italy; and, on the 5th of April 823, was crowned emperor by Pope Paschal I. at Rome. In November 824 he promulgated a statute concerning the relations of pope and emperor which reserved the supreme power to the secular potentate, and he afterwards issued various ordinances for the good government of Italy. On his return to his father's court his stepmother Judith won his consent to her plan for securing a kingdom for her son Charles, a scheme which was carried out in 829. Lothair, however, soon changed his attitude, and spent the succeeding decade in constant strife over the division of the Empire with his father. He was alternately master of the Empire, and banished and confined to Italy; at one time taking up arms in alliance with his brothers and at another fighting against them; whilst the bounds of his appointed kingdom were in turn extended and reduced. When Louis was dying in 840, he sent the imperial *insignia* to Lothair, who, disregarding the various partitions, claimed the whole of the Empire. Negotiations with his brother Louis and his half-brother Charles, both of whom armed to resist this claim, were followed by an alliance of the younger brothers against Lothair. A decisive battle was fought at Fontenoy on the 25th of June 841, when, in spite of his personal gallantry, Lothair was defeated and fled to Aix. With fresh troops he entered upon a war of plunder, but the forces of his brothers were too strong for him, and taking with him such treasure as he could collect, he abandoned to them his capital. Efforts to make peace were begun, and in June 842 the brothers met on an island in the Sâone, and agreed to an arrangement which developed, after much difficulty and delay, into the treaty of Verdun signed in August 843. By this Lothair received Italy and the imperial title, together with a stretch of land between the North and Mediterranean Seas lying along the valleys of the Rhine and the Rhone. He soon abandoned Italy to his eldest son, Louis, and remained in his new kingdom, engaged in alternate quarrels and reconciliations with his brothers, and in futile efforts to defend his lands from the attacks of the Normans and the Saracens. In 855 he became seriously ill, and despairing of recovery renounced the throne, divided his lands between his three sons, and on the 23rd of September entered the monastery of Prüm, where he died six days later. He was buried at Prüm, where his remains were found in 1860. Lothair was entirely untrustworthy and quite unable to maintain either the unity or the dignity of the empire of Charlemagne.

See "Annales Fuldenses"; Nithard, "Historiarum Libri," both in the *Monumenta Germaniae historica. Scriptores, Bände* i. and ii. (Hanover and Berlin, 1826 fol.); E. Mühlbacher, *Die Regesten des Kaiserreichs unter den Karolingern* (Innsbruck, 1881); E. Dümmler, *Geschichte des ostfränkischen Reichs* (Leipzig, 1887-1888); B. Simson, *Jahrbücher des deutschen Reiches unter Ludwig dem Frommen* (Leipzig, 1874-1876).

LOTHAIR II. or III. (*c.* 1070-1137), surnamed the "Saxon," Roman emperor, son of Gebhard, count of Supplinburg, belonged to a family possessing extensive lands around Helmstadt in Saxony, to which he succeeded on his father's death in 1075. Gebhard had been a leading opponent of the emperor Henry IV. in Saxony, and his son, taking the same attitude, assisted Egbert II., margrave of Meissen, in the rising of 1088. The position and influence of Lothair in Saxony, already considerable, was increased when in 1100 he married Richenza, daughter of Henry, count of Nordheim, who became an heiress on her father's death in 1101, and inherited other estates when her brother Otto died childless in 1116. Having assisted the German king, Henry V., against his father in 1104, Lothair was appointed duke of Saxony by Henry, when Duke Magnus, the last of the Billungs, died in 1106. His first care was to establish his authority over some districts east of the Elbe; and quickly making himself independent of the king, he stood forth as the representative of the Saxon race. This attitude brought him into collision with Henry V., to whom, however, he was forced to submit after an unsuccessful rising in 1112. A second rising was caused when, on the death of Ulrich II., count of Weimar and Orlamünde, without issue in 1112, Henry seized these counties as vacant fiefs of the empire, while Lothair supported the claim of Siegfried, count of Ballenstädt, whose mother was a relative of Ulrich. The rebels were defeated, and Siegfried was killed at Warnstädt in 1113, but his son secured possession of the disputed counties. After the defeat by Lothair of Henry's forces at Welfesholz on the 11th of February 1115, events called Henry to Italy; and Lothair appears to have been undisturbed in Saxony until 1123, when the death of Henry II., margrave of Meissen and Lusatia raised a dispute as to the right of appointment to the vacant margraviates. A struggle ensued, in which victory remained with the duke. The Saxony policy of Lothair during these years had been to make himself independent, and to extend his authority; to this end he allied himself with the papal party, and easily revived the traditional hostility of the Saxons to the Franconian emperors.

When Henry V. died in 1125, Lothair, after a protracted election, was chosen German king at Mainz on the 30th of August 1125. His election was largely owing to the efforts of Adalbert, archbishop of Mainz, and the papal party, who disliked the candidature of Henry's nephew and heir, Frederick II. of Hohenstaufen, duke of Swabia. The new king was crowned at Aix-la-Chapelle on the 13th of September 1125. Before suffering a severe reverse, brought about by his interference in the internal affairs of Bohemia, Lothair requested Frederick of Hohenstaufen to restore to the crown the estates bequeathed to him by the

emperor Henry V. Frederick refused, and was placed under the ban. Lothair, unable to capture Nüremberg, gained the support of Henry the Proud, the new duke of Bavaria, by giving him his daughter, Gertrude, in marriage, and that of Conrad, count of Zähringen, by granting him the administration of the kingdom of Burgundy, or Arles. As a counterstroke, however, Conrad of Hohenstaufen, the brother of Frederick, was chosen German king in December 1127, and was quickly recognized in northern Italy. But Lothair gained the upper hand in Germany, and by the end of 1129 the Hohenstaufen strongholds, Nüremberg and Spires, were in his possession. This struggle was accompanied by disturbances in Lorraine, Saxony and Thuringia, but order was soon restored after the resistance of the Hohenstaufen had been beaten down. In 1131 the king led an expedition into Denmark, where one of his vassals had been murdered by Magnus, son of the Danish king, Niels, and where general confusion reigned; but no resistance was offered, and Niels promised to pay tribute to Lothair.

The king's attention at the time was called to Italy where two popes, Innocent II. and Anacletus II., were clamouring for his support. At first Lothair, fully occupied with the affairs of Germany, remained heedless and neutral; but in March 1131 he was visited at Liége by Innocent, to whom he promised his assistance. Crossing the Alps with a small army in September 1132, he reached Rome in March 1133, accompanied by Innocent. As St Peter's was held by Anacletus, Lothair's coronation as emperor took place on the 4th of June 1133 in the church of the Lateran. He then received as papal fiefs the vast estates of Matilda, marchioness of Tuscany, thus securing for his daughter and her Welf husband lands which might otherwise have passed to the Hohenstaufen. His efforts to continue the investiture controversy were not very serious. He returned to Germany, where he restored order in Bavaria, and made an expedition against some rebels in the regions of the lower Rhine. Resuming the struggle against the Hohenstaufen, Lothair soon obtained the submission of the brothers, who retained their lands, and a general peace was sworn at Bamberg. The emperor's authority was now generally recognized, and the annalists speak highly of the peace and order of his later years. In 1135, Eric II., king of Denmark, acknowledged himself a vassal of Lothair; Boleslaus III., prince of the Poles, promised tribute and received Pomerania and Rügen as German fiefs; while the eastern emperor, John Comnenus, implored Lothair's aid against Roger II. of Sicily.

The emperor seconded the efforts of his vassals, Albert the Bear, margrave of the Saxon north mark, and Conrad I., margrave of Meissen and Lusatia, to extend the authority of the Germans in the districts east of the Elbe, and assisted Norbert, archbishop of Magdeburg, and Albert I., archbishop of Bremen, to spread Christianity. In August 1136, attended by a large army, Lothair set out upon his second Italian journey. The Lombard cities were either terrified into submission or taken by storm; Roger II. was driven from Apulia; and the imperial power enforced over the whole of southern Italy. A mutiny among the German soldiers and a breach with Innocent concerning the overlordship of Apulia compelled the emperor to retrace his steps. An arrangement was made with regard to Apulia, after which Lothair, returning to Germany, died at Breitenwang, a village in the Tirol, on the 3rd or 4th of December 1137. His body was carried to Saxony and buried in the monastery which he had founded at Königslutter. Lothair was a strong and capable ruler, who has been described as the "imitator and heir of the first Otto." Contemporaries praise his justice and his virtue, and his reign was regarded, especially by Saxons and churchmen, as a golden age for Germany.

The main authorities for the life and reign of Lothair are: "Vita Norberti archiepiscopi Magdeburgensis"; Otto von Freising, "Chronicon Annalista Saxo" and "Narratio de electione Lotharii" all in the *Monumenta Germaniae historica. Scriptores*, Bände vi., xii. and xx. (Hanover and Berlin, 1826-1892). The best modern works are: L. von Ranke, *Weltgeschichte*, pt. viii. (Leipzig, 1887-1888); W. von Giesebrecht, *Geschichte der Deutschen Kaiserzeit*, Band iv. (Brunswick, 1877), Band v. (Leipzig, 1888); Ph. Jaffe, *Geschichte des Deutschen Reiches unter Lothar* (Berlin, 1843); W. Bernhardi, *Lothar von Supplinburg* (Leipzig, 1879); O. von Heinemann, *Lothar der Sachse und Konrad III.* (Halle, 1869); and Ch. Volkmar, "Das Vërhältniss Lothars III. zur Investiturfrage," in the *Forschungen zur Deutschen Geschichte*, Band xxvi. (Göttingen, 1862-1886).

LOTHAIR (941-986), king of France, son of Louis IV., succeeded his father in 954, and was at first under the guardianship of Hugh the Great, duke of the Franks, and then under that of his maternal uncle Bruno, archbishop of Cologne. The beginning of his reign was occupied with wars against the vassals, particularly against the duke of Normandy. Lothair then seems to have conceived the design of recovering Lorraine. He attempted to precipitate matters by a sudden attack, and in the spring of 978 nearly captured the emperor Otto II. at Aix-la-Chapelle. Otto took his revenge in the autumn by invading France. He penetrated as far as Paris, devastating the country through which he passed, but failed to take the town, and was forced to retreat with heavy loss. Peace was concluded in 980 at Margut-sur-Chiers, and in 983 Lothair was even chosen guardian to the young Otto III. Towards 980, however, Lothair quarrelled with Hugh the Great's son, Hugh Capet, who, at the instigation of Adalberon, archbishop of Reims, became reconciled with Otto III. Lothair died on the 2nd of March 986. By his wife Emma, daughter of Lothair, king of Italy, he left a son who succeeded him as Louis V.

See F. Lot, *Les Derniers Carolingiens* (Paris, 1891); and the *Recueil des actes de Lothaire et de Louis V.*, edited by L. Halphen and F. Lot (1908).

LOTHAIR (825-869), king of the district called after him Lotharingia, or Lorraine, was the second son of the emperor Lothair I. On his father's death in 855, he received for his kingdom a district lying west of the Rhine, between the North Sea and the Jura mountains, which was called *Regnum Lotharii* and early in the 10th century became known as Lotharingia or Lorraine. On the death of his brother Charles in 863 he added some lands south of the Jura to this inheritance, but, except for a few feeble expeditions against the Danish pirates, he seems to have done little for its government or its defence. The reign was chiefly occupied by efforts on the part of Lothair to obtain a divorce from his wife Teutberga, a sister of Hucbert, abbot of St Maurice (d. 864); and his relations with his uncles, Charles the Bald and Louis the German, were influenced by his desire to obtain their support to this plan. Although quarrels and reconciliations between the three kings followed each other in quick succession, in general it may be said that Louis favoured the divorce, and Charles opposed it, while neither lost sight of the fact that Lothair was without male issue. Lothair, whose desire for the divorce was prompted by his affection for a certain Waldrada, put away Teutberga; but Hucbert took up arms on her behalf, and after she had submitted successfully to the ordeal of water, Lothair was compelled to restore her in 858. Still pursuing his purpose, he won the support of his brother, the emperor Louis II., by a cession of lands, and obtained the consent of the local clergy to the divorce and to his marriage with Waldrada, which was celebrated in 862. A synod of Frankish bishops met at Metz in 863 and confirmed this decision, but Teutberga fled to the court of Charles the Bald, and Pope Nicholas I. declared against the decision of the synod. An attack on Rome by the emperor was without result, and in 865 Lothair, convinced that Louis and Charles at their recent meeting had discussed the partition of his kingdom, and threatened with excommunication, again took back his wife. Teutberga, however, either from inclination or compulsion, now expressed her desire for a divorce, and Lothair went to Italy to obtain the assent of

the new pope Adrian II. Placing a favourable interpretation upon the words of the pope, he had set out on the return journey, when he was seized with fever and died at Piacenza on the 8th of August 869. He left, by Waldrada, a son Hugo who was declared illegitimate, and his kingdom was divided between Charles the Bald and Louis the German.

See Hincmar, "Opusculum de divortio Lotharii regis et Tetbergae reginae," in *Cursus completus patrologiae*, tome cxxv., edited by J. P. Migne (Paris, 1857-1879); M. Sdralek, *Hinkmars von Rheims Kanonistisches Gutachten über die Ehescheidung des Königs Lothar II.* (Freiburg, 1881); E. Dümmler, *Geschichte des ostfränkischen Reiches* (Leipzig, 1887-1888); and E. Mühlbacher, *Die Regenten des Kaiserreichs unter den Karolingern* (Innsbruck, 1881).

LOTHIAN, EARLS AND MARQUESSES OF.

Mark Kerr, 1st earl of Lothian (d. 1609), was the eldest son of Mark Kerr (d. 1584), abbot, and then commendator, of Newbattle, or Newbottle, and was a member of the famous border family of Ker of Cessford. The earls and dukes of Roxburghe, who are also descended from the Kers of Cessford, have adopted the spelling Ker, while the earls and marquesses of Lothian have taken the form Kerr. Like his father, the abbot of Newbattle, Mark Kerr was an extraordinary lord of session under the Scottish king James VI.; he became Lord Newbattle in 1587 and was created earl of Lothian in 1606. He was master of inquests from 1577 to 1606, and he died on the 8th of April 1609, having had, as report says, thirty-one children by his wife, Margaret (d. 1617), daughter of John Maxwell, 4th Lord Herries. His son Robert, the 2nd earl, died without sons in July 1624. He had, in 1621, obtained a charter from the king enabling his daughter Anne to succeed to his estates provided that she married a member of the family of Ker. Consequently in 1631 she married William Ker, son of Robert, 1st earl of Ancrum (1578-1654), a member of the family of Ker of Ferniehurst, whose father, William Ker, had been killed in 1590 by Robert Ker, afterwards 1st earl of Roxburghe. Robert was in attendance upon Charles I. both before and after he came to the throne, and was created earl of Ancrum in 1633. He was a writer and a man of culture, and among his friends were the poet Donne and Drummond of Hawthornden. His elder son William was created earl of Lothian in 1631, the year of his marriage with Anne Kerr, and Sir William Kerr of Blackhope, a brother of the 2nd earl, who had taken the title of earl of Lothian in 1624, was forbidden to use it (see *Correspondence of Sir Robert Ker, earl of Ancrum, and his son William, third earl of Lothian*, 1875).

William Ker (*c.* 1605-1675), who thus became 3rd earl of Lothian, signed the Scottish national covenant in 1638 and marched with the Scots into England in 1640, being present when the English were routed at Newburn, after which he became governor of Newcastle-on-Tyne. During the Civil War he was prominent rather as a politician than as a soldier; he became a Scottish secretary of state in 1649, and was one of the commissioners who visited Charles II. at Breda in 1650. He died at Newbattle Abbey, near Edinburgh, in October 1675. William's eldest son Robert, the 4th earl (1636-1703), supported the Revolution of 1688 and served William III. in several capacities; he became 3rd earl of Ancrum on the death of his uncle Charles in 1690, and was created marquess of Lothian in 1701. His eldest son William, the 2nd marquess (*c.* 1662-1722), who had been a Scottish peer as Lord Jedburgh since 1692, was a supporter of the union with England. His son William, the 3rd marquess (*c.* 1690-1767), was the father of William Henry, the 4th marquess, who was wounded at Fontenoy and was present at Culloden. He was a member of parliament for some years and had reached the rank of general in the army when he died at Bath on the 12th of April 1775. His grandson William, the 6th marquess (1763-1824), married Henrietta (1762-1805), daughter and heiress of John Hobart, 2nd earl of Buckinghamshire, thus bringing Blickling Hall and the Norfolk estates of the Hobarts into the Kerr family. In 1821 he was created a peer of the United Kingdom as Baron Ker and he died on the 27th of April 1824. In 1900 Robert Schomberg Kerr (b. 1874) succeeded his father, Schomberg Henry, the 9th marquess (1833-1900), as 10th marquess of Lothian.

LOTHIAN.

This name was formerly applied to a considerably larger extent of country than the three counties of Linlithgow, Edinburgh and Haddington. Roxburghshire and Berwickshire at all events were included in it, probably also the upper part of Tweeddale (at least Selkirk). It would thus embrace the eastern part of the Lowlands from the Forth to the Cheviots, *i.e.* all the English part of Scotland in the 11th century. This region formed from the 7th century onward part of the kingdoms of Bernicia and Northumbria, though we have no definite information as to the date or events by which it came into English hands. In Roman times, according to Ptolemy, it was occupied by a people called Otadini, whose name is thought to have been preserved in Manaw Gododin, the home of the British king Cunedda before he migrated to North Wales. There is no reason to doubt that the district remained in Welsh hands until towards the close of the 6th century; for in the *Historia Brittonum* the Bernician king Theodoric, whose traditional date is 572-579, is said to have been engaged in war with four Welsh kings. One of these was Rhydderch Hen who, as we know from Adamnan, reigned at Dumbarton, while another named Urien is said to have besieged Theodoric in Lindisfarne. If this statement is to be believed it is hardly likely that the English had by this time obtained a firm footing beyond the Tweed. At all events there can be little doubt that the whole region was conquered within the next fifty years. Most probably the greater part of it was conquered by the Northumbrian king Æthelfrith, who, according to Bede, ravaged the territory of the Britons more often than any other English king, in some places reducing the natives to dependence, in others exterminating them and replacing them by English settlers.

In the time of Oswic the English element became predominant in northern Britain. His supremacy was acknowledged both by the Welsh in the western Lowlands and by the Scots in Argyllshire. On the death of the Pictish king Talorgan, the son of his brother Eanfrith, he seems to have obtained the sovereignty over a considerable part of that nation also. Early in Ecgfrith's reign an attempt at revolt on the part of the Picts proved unsuccessful. We hear at this time also of the establishment of an English bishopric at Abercorn, which, however, only lasted for a few years. By the disastrous overthrow of Ecgfrith in 685 the Picts, Scots and some of the Britons also recovered their independence. Yet we find a succession of English bishops at Whithorn from 730 to the 9th century, from which it may be inferred that the south-west coast had already by this time become English. The Northumbrian dominions were again enlarged by Eadberht, who in 750 is said to have annexed Kyle, the central part of Ayrshire, with other districts. In conjunction with Œngus mac Fergus, king of the Picts, he also reduced the whole of the Britons to submission in 756. But this subjugation was not lasting, and the British kingdom, though now reduced to the basin of the Clyde, whence its inhabitants are known as Strathclyde Britons, continued to exist for nearly three centuries. After Eadberht's time we hear little of events in the northern part of Northumbria, and there is some reason for suspecting that English influence in the south-west began to decline before long, as our list of bishops of Whithorn ceases early in the 9th century; the evidence on this point, however, is not so decisive as is commonly stated. About 844 an important revolution took place among the Picts. The throne was acquired by Kenneth mac Alpin, a prince of Scottish family, who soon became formidable to the Northumbrians. He is said to have invaded "Saxonia" six times, and to have burnt Dunbar and Melrose. After the disastrous battle at York in 867 the Northumbrians were weakened by the loss of the southern part of their

territories, and between 883 and 889 the whole country as far as Lindisfarne was ravaged by the Scots. In 919, however, we find their leader Aldred calling in Constantine II., king of the Scots, to help them. A few years later together with Constantine and the Britons they acknowledged the supremacy of Edward the Elder. After his death, however, both the Scots and the Britons were for a time in alliance with the Norwegians from Ireland, and consequently Æthelstan is said to have ravaged a large portion of the Scottish king's territories in 934. Brunanburh, where Æthelstan defeated the confederates in 937, is believed by many to have been in Dumfriesshire, but we have no information as to the effects of the battle on the northern populations. By this time, however, the influence of the Scottish kingdom certainly seems to have increased in the south, and in 945 the English king Edmund gave Cumberland, *i.e.* apparently the British kingdom of Strathclyde, to Malcolm I., king of the Scots, in consideration of his alliance with him. Malcolm's successor Indulph (954-962) succeeded in capturing Edinburgh, which thenceforth remained in possession of the Scots. His successors made repeated attempts to extend their territory southwards, and certain late chroniclers state that Kenneth II. in 971-975 obtained a grant of the whole of Lothian from Edgar. Whatever truth this story may contain, the cession of the province was finally effected by Malcolm II. by force of arms. At his first attempt in 1006 he seems to have suffered a great defeat from Uhtred, the son of earl Waltheof. Twelve years later, however, he succeeded in conjunction with Eugenius, king of Strathclyde, in annihilating the Northumbrian army at Carham on the Tweed, and Eadulf Cudel, the brother and successor of Uhtred, ceded all his territory to the north of that river as the price of peace. Henceforth in spite of an invasion by Aldred, the son of Uhtred, during the reign of Duncan, Lothian remained permanently in possession of the Scottish kings. In the reign of Malcolm III. and his son, the English element appears to have acquired considerable influence in the kingdom. Some three years before he obtained his father's throne Malcolm had by the help of earl Siward secured the government of Cumbria (Strathclyde) with which Lothian was probably united. Then in 1068 he received a large number of exiles from England, amongst them the Ætheling Eadgar, whose sister Margaret he married. Four other sons in succession occupied the throne, and in the time of the youngest, David, who held most of the south of Scotland as an earldom from 1107-1124 and the whole kingdom from 1124-1153, the court seems already to have been composed chiefly of English and Normans.

AUTHORITIES.—Bede, *Historia Ecclesiastica* (ed. C. Plummer, Oxford, 1896); *Anglo-Saxon Chronicle* (ed. Earle and Plummer, Oxford, 1899); Simeon of Durham (Rolls Series, ed. T. Arnold, 1882); W. F. Skene, *Chronicle of Picts and Scots* (Edinburgh, 1867), and *Celtic Scotland* (Edinburgh, 1876-1880); and J. Rhys, *Celtic Britain* (London).

(F. G. M. B.)

LOTI, PIERRE [the pen-name of LOUIS MARIE JULIEN VIAUD] (1850-), French author, was born at Rochefort on the 14th of January 1850. The Viauds are an old Protestant family, and Pierre Loti consistently adhered, at least nominally, to the faith of his fathers. Of the picturesque and touching incidents of his childhood he has given a very vivid account in *Le Roman d'un enfant* (1890). His education began in Rochefort, but at the age of seventeen, being destined for the navy, he entered the naval school, Le Borda, and gradually rose in his profession, attaining the rank of captain in 1906. In January 1910 he was placed on the reserve list. His pseudonym is said to be due to his extreme shyness and reserve in early life, which made his comrades call him after *le Loti*, an Indian flower which loves to blush unseen. He was never given to books or study (when he was received at the French Academy, he had the courage to say, "Loti ne sait pas lire"), and it was not until 1876 that he was persuaded to write down and publish some curious experiences at Constantinople, in *Aziyadé*, a book which, like so many of Loti's, seems half a romance, half an autobiography. He proceeded to the South Seas, and on leaving Tahiti published the Polynesian idyll, originally called *Rarahu* (1880), which was reprinted as *Le Mariage de Loti*, and which first introduced to the wider public an author of remarkable originality and charm. *Le Roman d'un spahi*, a record of the melancholy adventures of a soldier in Senegambia, belongs to 1881. In 1882 Loti issued a collection of short studies under the general title of *Fleurs d'ennui*. In 1883 he achieved the widest celebrity, for not only did he publish *Mon frère Yves*, a novel describing the life of a French bluejacket in all parts of the world—perhaps his most characteristic production—but he was involved in a public discussion in a manner which did him great credit. While taking part as a naval officer in the Tongking War, Loti had exposed in the *Figaro* a series of scandals which followed on the capture of Hué (1883), and was suspended from the service for more than a year. He continued for some time nearly silent, but in 1886 he published a novel of life among the Breton fisher-folk, called *Pêcheur d'islande*, the most popular of all his writings. In 1887 he brought out a volume of extraordinary merit, which has not received the attention it deserves; this is *Propos d'exil*, a series of short studies of exotic places, in his peculiar semi-autobiographic style. The fantastic novel of Japanese manners, *Madame Chrysanthème*, belongs to the same year. Passing over one or two slighter productions, we come in 1890 to *Au Maroc*, the record of a journey to Fez in company with a French embassy. A collection of strangely confidential and sentimental reminiscences, called *Le Livre de la pitié et de la mort*, belongs to 1891. Loti was on board his ship at the port of Algiers when news was brought to him of his election, on the 21st of May 1891, to the French Academy. In 1892 he published *Fantôme d'orient*, another dreamy study of life in Constantinople, a sort of continuation of *Aziyadé*. He described a visit to the Holy Land, somewhat too copiously, in three volumes (1895-1896), and wrote a novel, *Ramuntcho* (1897), a story of manners in the Basque province, which is equal to his best writings. In 1900 he visited British India, with the view of describing what he saw; the result appeared in 1903—*L'Inde* (*sans les Anglais*). At his best Pierre Loti was unquestionably the finest descriptive writer of the day. In the delicate exactitude with which he reproduced the impression given to his own alert nerves by unfamiliar forms, colours, sounds and perfumes, he was without a rival. But he was not satisfied with this exterior charm; he desired to blend with it a moral sensibility of the extremest refinement, at once sensual and ethereal. Many of his best books are long sobs of remorseful memory, so personal, so intimate, that an English reader is amazed to find such depth of feeling compatible with the power of minutely and publicly recording what is felt. In spite of the beauty and melody and fragrance of Loti's books his mannerisms are apt to pall upon the reader, and his later books of pure description were rather empty. His greatest successes were gained in the species of confession, half-way between fact and fiction, which he essayed in his earlier books. When all his limitations, however, have been rehearsed, Pierre Loti remains, in the mechanism of style and cadence, one of the most original and most perfect French writers of the second half of the 19th century. Among his later works were: *La Troisième jeunesse de Mme Prune* (1905); *Les Désenchantées* (1906, Eng. trans. by C. Bell); *La Mort de Philae* (1908); *Judith Renaudin* (Théâtre Antoine, 1904), a five-act historical play based on an earlier book; and, in collaboration with Émile Vedel, a translation of *King Lear*, also produced at the Théâtre Antoine in 1904.

(E. G.)

LÖTSCHEN PASS, or LÖTSCHBERG, an easy glacier pass (8842 ft.) leading from Kandersteg in the Bernese Oberland to the Lötschen valley in the Valais. It is a very old pass, first mentioned distinctly in 1352, but probably crossed previously by the Valaisans who colonized various parts of the Bernese Oberland. In 1384 and again in 1419 battles were fought on it between the Bernese and the Valaisans, while in 1698 a mule path (of which traces still exist) was constructed on the Bernese

slope, though not continued beyond owing to the fear of the Valaisans that the Bernese would come over and alter their religion. In 1906 the piercing of a tunnel (8½ m. long) beneath this pass was begun, starting a little above Kandersteg and ending at Goppenstein near the mouth of the Lötschen valley. Subsidies were granted by both the confederation and the canton of Bern. This pass is to be carefully distinguished from the Lötschenlücke (10,512 ft.), another easy glacier pass which leads from the head of the Lötschen valley to the Great Aletsch glacier.

(W. A. B. C.)

LOTTERIES. The word lottery[1] has no very definite signification. It may be applied to any process of determining prizes by lot, whether the object be amusement or gambling or public profit. In the Roman Saturnalia and in the banquets of aristocratic Romans the object was amusement; the guests received *apophoreta*. The same plan was followed on a magnificent scale by some of the emperors. Nero gave such prizes as a house or a slave. Heliogabalus introduced an element of absurdity—one ticket for a golden vase, another for six flies. This custom descended to the festivals given by the feudal and merchant princes of Europe, especially of Italy; and it formed a prominent feature of the splendid court hospitality of Louis XIV. In the Italian republics of the 16th century the lottery principle was applied to encourage the sale of merchandise. The lotto of Florence and the seminario of Genoa are well known, and Venice established a monopoly and drew a considerable revenue for the state. The first letters patent for a lottery in France were granted in 1539 by Francis I., and in 1656 the Italian, Lorenzo Tonti (the originator of "Tontines") opened another for the building of a stone bridge between the Louvre and the Faubourg St Germain. The institution became very popular in France, and gradually assumed an important place in the government finance. The parlements frequently protested against it, but it had the support of Mazarin, and L. Phelypeaux, comte de Pontchartrain, by this means raised the expenses of the Spanish Succession War. Necker, in his *Administration des finances*, estimates the public charge for lotteries at 4,000,000 livres per annum. There were also lotteries for the benefit of religious communities and charitable purposes. Two of the largest were the *Loteries de Piété* and *Des Enfans Trouvés*. These and also the great *Loterie de l'École militaire* were practically merged in the *Loterie Royale* by the decree of 1776, suppressing all private lotteries in France. The financial basis of these larger lotteries was to take 5/24ths for expenses and benefit, and return 19/24ths to the public who subscribed. The calculation of chances had become a familiar science. It is explained in detail by Caminade de Castres in *Enc. méth. finances*, ii. *s.v.* "Loterie." The names of the winning numbers in the first drawing were (1) *extrait*, (2) *ambe*, (3) *terne*, (4) *quaterne*, (5) *quine*. After this there were four drawings called *primes gratuites*. The *extrait* gave fifteen times the price of the ticket; the *quine* gave one million times the price. These are said to be much more favourable terms than were given in Vienna, Frankfort and other leading European cities at the end of the 18th century. The *Loterie Royale* was ultimately suppressed in 1836. Under the law of the 29th of May 1844 lotteries may be held for the assistance of charity and the fine arts. In 1878 twelve million lottery tickets of one franc each were sold in Paris to pay for prizes to exhibitors in the great Exhibition and expenses of working-men visitors. The first prize was worth £5000; the second, £4000, and the third and fourth £2000 each. The Société du Crédit Foncier, and many of the large towns, are permitted to contract loans, the periodical repayments of which are determined by lot. This practice, which is prohibited in Germany and England, resembles the older system of giving higher and lower rates of interest for money according to lot. Lotteries were suppressed in Belgium in 1830, Sweden in 1841 and Switzerland in 1865, but they still figure in the state budgets of Austria-Hungary, Prussia and other German States, Holland, Spain, Italy and Denmark. In addition to lottery loans, ordinary lotteries (*occasion lotteries*) are numerous in various countries of the continent of Europe. They are of various magnitude and are organized for a variety of purposes, such as charity, art, agriculture, church-building, &c. It is becoming the tendency, however, to discourage private and indiscriminate lotteries, and even state lotteries which contribute to the revenue. In Austria-Hungary and Germany, for instance, every year sees fewer places where tickets can be taken for them receive licenses. In 1904 a proposal for combining a working-class savings bank with a national lottery was seriously considered by the Prussian ministry. The scheme, which owes its conception to August Scherl, editor of the Berlin *Lokalanzeiger*, is an endeavour to utilize the love of gambling for the purpose of promoting thrift among the working-classes. It was proposed to make weekly collections from subscribers, in fixed amounts, ranging from sixpence to four shillings. The interest on the money deposited would not go to the depositors but would be set aside to form the prizes. Three hundred thousand tickets, divisible into halves, quarters and eighths, according to the sum deposited weekly, would form a series of 12,500 prizes, of a total value of £27,000. At the same time, the subscriber, while having his ordinary lottery chances of these prizes, still has to his credit intact the amount which he has subscribed week by week.

In England the earliest lotteries sanctioned by government were for such purposes as the repair of harbours in 1569, and the Virginia Company in 1612. In the lottery of 1569, 40,000 chances were sold at ten shillings each, the prizes being "plate, and certain sorts of merchandises." In 1698 lotteries, with the exception of the Royal Oak lottery for the benefit of the Royal Fishing Company, were prohibited as common nuisances, by which children, servants and other unwary persons had been ruined. This prohibition was in the 18th century gradually extended to illegal insurances on marriages and other events, and to a great many games with dice, such as faro, basset, hazard, except backgammon and games played in the royal palace. In spite of these prohibitions, the government from 1709 down to 1824 annually raised considerable sums in lotteries authorized by act of parliament. The prizes were in the form of terminable or perpetual annuities. The £10 tickets were sold at a premium of say 40% to contractors who resold them in retail (sometimes in one-sixteenth parts) by "morocco men," or men with red leather books who travelled through the country. As the drawing extended over forty days, a very pernicious system arose of insuring the fate of tickets during the drawing for a small premium of 4d. or 6d. This was partly cured by the Little Go Act of 1802, directed against the itinerant wheels which plied between the state lotteries, and partly by Perceval's Act in 1806, which confined the drawing of each lottery to one day. From 1793 to 1824 the government made an average yearly profit of £346,765. Cope, one of the largest contractors, is said to have spent £36,000 in advertisements in a single year. The English lotteries were used to raise loans for general purposes, but latterly they were confined to particular objects, such as the improvement of London, the disposal of a museum, the purchase of a picture gallery, &c. Through the efforts of Lord Lyttleton and others a strong public opinion was formed against them, and in 1826 they were finally prohibited. An energetic proposal to revive the system was made before the select committee on metropolitan improvements in 1830, but it was not listened to. By a unique blunder in legislation, authority was given to hold a lottery under an act of 1831 which provided a scheme for the improvement of the city of Glasgow. These "Glasgow lotteries" were suppressed by an act of 1834. Art Unions were legalized by the Art Unions Act 1846. The last lottery prominently before the public in England was that of Dethier's twelfth-cake lottery, which was suppressed on the 27th of December 1860. As defined at the beginning of this article, the word lottery has a meaning wide enough to include missing-word competitions, distributions by tradesmen of prize coupons, sweepstakes, &c. See *Report of Joint Select Committee on Lotteries, &c.* (1908). The statute law in Scotland is the same as in England. At common law in Scotland it is probable that all lotteries and raffles, for whatever purpose held, may be indicted as nuisances. The art unions are supposed to be protected by a special statute.

United States.—The American Congress of 1776 instituted a national lottery. Most states at that time legalized lotteries for public objects, and before 1820 the Virginia legislature passed seventy acts authorizing lotteries for various public purposes, such as schools, roads, &c.—about 85% of the subscriptions being returned in prizes. At an early period (1795) the city of Washington was empowered to set up lotteries as a mode of raising money for public purposes; and this authorization from the Maryland legislature was approved by an act of the Federal Congress in 1812. In 1833 they were prohibited in New York

and Massachusetts and gradually in the other states, until they survived only in Louisiana. In that state, the Louisiana State Lottery, a company chartered in 1868, had a monopoly for which it paid $40,000 to the state treasury. Its last charter was granted in 1879 for a period of twenty-five years, and a renewal was refused in 1890. In 1890 Congress forbade the use of the mails for promoting any lottery enterprise by a statute so stringent that it was held to make it a penal offence to employ them to further the sale of Austrian government bonds, issued under a scheme for drawing some by lot for payment at a premium (see *Horner* v. *United States*, 147 United States Reports, 449). This had the effect of compelling the Louisiana State Lottery to move its quarters to Honduras, in which place it still exists, selling its bonds to a considerable extent in the Southern States.

Since lotteries have become illegal there have been a great number of judicial decisions defining a lottery. In general, where skill or judgment is to be exercised there is no lottery, the essential element of which is chance or lot. There are numerous statutes against lotteries, the reason being given that they "tend to promote a gambling spirit," and that it is the duty of the state to "protect the morals and advance the welfare of the people." In New York the Constitution of 1846 forbade lotteries, and by § 324 of the Penal Code a lottery is declared "unlawful and a public nuisance." "Contriving" and advertising lotteries is also penal. The following have been held illegal lotteries: In New York, a concert, the tickets for which entitled the holder to a prize to be drawn by lot; in Indiana, offering a gold watch to the purchaser of goods who guesses the number of beans in a bottle; in Texas, selling "prize candy" boxes; and operating a nickel-in-the-slot machine—so also in Louisiana; in Massachusetts, the "policy" or "envelope game," or a "raffle"; in Kentucky (1905), prize coupon packages, the coupons having to spell a certain word (*U.S.* v. *Jefferson*, 134 Fed. R. 299); in Kansas (1907) it was held by the Supreme Court that the gift of a hat-pin to each purchaser was not illegal as a "gift enterprise," there being no chance or lot. In Oklahoma (1907) it was held that the making of contracts for the payment of money, the certainty in value of return being dependent on chance, was a lottery (*Fidelity Fund Co.* v. *Vaughan*, 90 Pac. Rep. 34). The chief features of a lottery are "procuring through lot or chance, by the investment of a sum of money or something of value, some greater amount of money or thing of greater value. When such are the chief features of any scheme whatever it may be christened, or however it may be guarded or concealed by cunningly devised conditions or screens, it is under the law a lottery" (*U.S.* v. *Wallace*, 58, Fed. Rep. 942). In 1894 and 1897 Congress forbade the importation of lottery tickets or advertisements into the United States. In 1899, setting up or promoting lotteries in Alaska was prohibited by Congress, and in 1900 it forbade any lottery or sale of lottery tickets in Hawaii. In Porto Rico lotteries, raffles and gift-enterprises are forbidden (Penal Code, 1902, § 291). 22

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1 The word "lottery" is directly derived from Ital. *lotteria*, cf. Fr. *loterie*, formed from *lotto*, lot, game of chance. "Lot" is in origin a Teutonic word, adopted into Romanic languages. In O. Eng. it appears as *hlot*, cf. Dutch *lot*, Ger. *Loos*, Dan. *lod*, &c. The meaning of the Teutonic root *hleut* from which these words have derived is unknown. Primarily "lot" meant the object, such as a disk or counter of wood, a pebble, bean or the like, which was drawn or cast to decide by chance, under divine guidance, various matters, such as disputes, divisions of property, selection of officers and frequently as a method of divination in ancient times. From this original sense the meaning develops into that which falls to a person by lot, chance or fate, then to any portion of land, &c., allotted to a person, and hence, quite generally, of a quantity of anything.

LOTTI, ANTONIO (1667?-1740), Italian musical composer, was the son of Matteo Lotti, Kapellmeister to the court of Hanover. He was born, however, at Venice and as a pupil of Legrenzi. He entered the Doge's chapel as a boy, and in 1689 was engaged as an alto singer, succeeding later to the posts of deputy organist (1690), second organist (1692), first organist (1704), and, finally, in 1736 Maestro di Cappella at St Mark's church. He was also a composer of operas, and having attracted the interest of the crown prince of Saxony during his visit to Venice in 1712, he was invited to Dresden, where he went in 1717. After producing three operas there he was obliged to return to his duties at Venice in 1719. He died on the 5th of January 1740. Like many other Venetian composers he wrote operas for Vienna, and enjoyed a considerable reputation outside Italy. A volume of madrigals published in 1705 contains the famous *In una siepe ombrosa*, passed off by Bononcini as his own in London. Another is quoted by Martini in his *Saggio di Contrappunto*. Among his pupils were Alberti, Bassani, Galuppi, Gasparini and Marcello. Burney justly praises his church music, which is severe in style, but none the less modern in its grace and pathos. A fine setting of the *Dies Irae* is in the Imperial Library at Vienna, and some of his masses have been printed in the collections of Proske and Lück.

LOTTO, LORENZO (*c.* 1480-1556), Italian painter, is variously stated to have been born at Bergamo, Venice and Treviso, between 1475 and 1480, but a document published by Dr Bampo proves that he was born in Venice, and it is to be gathered from his will that 1480 was probably the year of his birth. Overshadowed by the genius of his three great contemporaries, Titian, Giorgione and Palma, he had been comparatively neglected by art historians until Mr Bernhard Berenson devoted to him an "essay in constructive art criticism," which not only restores to him his rightful position among the great masters of the Renaissance, but also throws clear light upon the vexed question of his artistic descent. Earlier authorities have made Lotto a pupil of Giovanni Bellini (Morelli), of Previtali (Crowe and Cavalcaselle), of Leonardo da Vinci (Lomazzo), whilst others discovered in his work the influences of Cima, Carpaccio, Dürer, Palma and Francia. Mr Berenson has, however, proved that he was the pupil of Alvise Vivarini, whose religious severity and asceticism remained paramount in his work, even late in his life, when he was attracted by the rich glow of Giorgione's and Titian's colour. What distinguishes Lotto from his more famous contemporaries is his psychological insight into character and his personal vision—his unconventionality, which is sufficient to account for the comparative neglect suffered by him when his art is placed beside the more typical art of Titian and Giorgione, the supreme expression of the character of the period.

That Lotto, who was one of the most productive painters of his time, could work for thirty years without succumbing to the mighty influence of Titian's sumptuous colour, is explained by the fact that during these years he was away from Venice, as is abundantly proved by documents and by the evidence of signed and dated works. The first of these documents, dated 1503, proves him to have lived at Treviso at this period. His earliest authentic pictures, Sir Martin Conway's "Danaë" (about 1498) and the "St Jerome" of the Louvre (a similar subject is at the Madrid Gallery ascribed to Titian), as indeed all the works executed before 1509, have unmistakable Vivarinesque traits in the treatment of the drapery and landscape, and cool grey tonality. To this group belong the Madonnas at Bridgewater House, Villa Borghese, Naples, and Sta Cristina near Treviso, the

Recanati altarpiece, the “Assumption of the Virgin” at Asolo, and the portrait of a young man at Hampton Court. We find him at Rome between 1508 and 1512, at the time Raphael was painting in the Stanza della Signatura. A document in the Corsini library mentions that Lotto received 100 ducats as an advance payment for fresco-work in the upper floor of the Vatican, but there is no evidence that this work was ever executed. In the next dated works, the “Entombment” at Jesi (1512), and the “Transfiguration,” “St James,” and “St Vincent” at Recanati, Lotto has abandoned the dryness and cool colour of his earlier style, and adopted a fluid method and a blonde, joyful colouring. In 1513 we find him at Bergamo, where he had entered into a contract to paint for 500 gold ducats an altarpiece for S. Stefano. The picture was only completed in 1516, and is now at S. Bartolommeo. From the next years, spent mostly at Bergamo, with intervals in Venice and Jesi in the Marches, date the Dresden “Madonna,” “Christ taking leave of his Mother” at the Berlin Gallery, the “Bride and Bridegroom” at Madrid, the National Gallery “Family Group” and portrait of the Protonothary Giuliano, several portraits in Berlin, Milan and Vienna, numerous altarpieces in and near Bergamo, the strangely misnamed “Triumph of Chastity” at the Rospigliosi Palace in Rome, and the portrait of Andrea Odoni at Hampton Court. In 1526 or 1527 Lotto returned to Venice, where Titian ruled supreme in the world of art; and it was only natural that the example of the great master should have fired him to emulation, though his experiments in this direction were confined to an attempt at rivalling the master’s rich and ruddy colour-schemes. Even in the Carmine altarpiece, the “St Nicholas of Bari,” which is his nearest approach to Titian, he retained his individualized, as opposed to Titian’s generalized, expression of emotion. But it was only a passing phase, and he soon returned to the cooler schemes of his earlier work. Among his chief pictures executed in Venice between 1529 and 1540 are the “Christ and the Adulteress,” now at the Louvre, the “Visitation” at the Jesi Library, the “Crucifixion” at Monte S. Giusto, the Madonna at the Uffizi, the “Madonna and Saints” at Cingoli, and some portraits at the Berlin and Vienna museums, the Villa Borghese and Doria Palace in Rome, and at Dorchester House. He is again to be found at Treviso from 1542-1545, at Ancona in 1550, the year in which he entirely lost his voice; and in 1552 he “devoted his person and all his property to the Holy Virgin of Loreto” and took up his abode with the monks of that shrine. He died in 1556. A codex in his own handwriting, discovered in the archives of Loreto, not only includes a complete statement of his accounts from about 1539 to his death, but has a most interesting entry from which we gather that in 1540 Lotto completed the portraits of Martin Luther and his wife. These portraits could not have been painted from life; they were presumably executed from some contemporary engraving.

See *Lorenzo Lotto*, by Bernard Berenson (London, 1901).

LOTTO (Ital. for “lot”), a gambling game usually called *Keno* in America, played by any number of persons upon large boards or cards, each of which is divided into three horizontal rows of nine spaces, four spaces in each row being left blank and the other five marked with numbers up to 90. Each card is designated by a general number. The cards usually lie on the gambling-table, and a player may buy from the bank as many as he cares to use, each card being registered or *pegged* on an exposed table as soon as bought. Ninety small ivory markers, generally balls flattened on one side, numbered from 1 to 90, are placed in a bag and shaken out one by one, or, more usually, in a so-called *keno-goose*, a kind of urn with a spout through which the balls are allowed to roll by means of a spring. When a number falls out, the banker, or *keno-roller*, calls it out distinctly, and each player upon whose card that number occurs places a mark over it. This is repeated until one player has all the numbers in one row of his card covered, upon which he calls out “Keno!” and wins all the money staked excepting a percentage to the bank.

LOTUS, a popular name applied to several plants. The lotus fruits of the Greeks belonged to *Zizyphus Lotus*, a bush native in south Europe with fruits as large as sloes, containing a mealy substance which can be used for making bread and also a fermented drink. In ancient times the fruits were an important article of food among the poor; whence “lotophagi” or lotus-eaters. *Zizyphus* is a member of the natural order Rhamnaceae to which belongs the British buckthorn. The Egyptian lotus was a water-lily, *Nymphaea Lotus*; as also is the sacred lotus of the Hindus, *Nelumbium speciosum*. The lotus tree, known to the Romans as the Libyan lotus, and planted by them for shade, was probably *Celtis australis*, the nettle-tree (*q.v.*), a southern European tree, a native of the elm family, with fruits like small cherries, which are first red and then black. *Lotus* of botanists is a genus of the pea-family (*Leguminosae*), containing a large number of species of herbs and undershrubs widely distributed in the temperate regions of the old world. It is represented in Britain by *L. corniculatus*, bird’s foot trefoil, a low-growing herb, common in pastures and waste places, with clusters of small bright yellow pea-like flowers, which are often streaked with crimson; the popular name is derived from the pods which when ripe spread like the toes of a bird’s foot.

LOTUS-EATERS (Gr. Λωτοφάγοι), a Libyan tribe known to the Greeks as early as the time of Homer. Herodotus (iv. 177) describes their country as in the Libyan district bordering on the Syrtes, and says that a caravan route led from it to Egypt. Victor Bérard identifies it with the modern Jerba. When Odysseus reached the country of the Lotophagi, many of his sailors after eating the lotus lost all wish to return home. Both Greeks and Romans used the expression “to eat the lotus” to denote forgetfulness (cf. Tennyson’s poem “The Lotus-Eaters”).

There has been considerable discussion as to the identification of the Homeric lotus. Some have held that it is a prickly shrub, Zizyphus Lotus, which bears a sweet-tasting fruit, and still grows in the old home of the Lotophagi. It is eaten by the natives, who also make a kind of wine from the juice. P. Champault (*Phéniciens et Grecs en Italie d’après l’Odyssée*, p. 400, note 2), however, maintains that the lotus was a date; Victor Bérard (*Les Phéniciens et l’Odyssée*, 1902-1903, ii. 102) is doubtful, but contends that it was certainly a tree-fruit. If either of these be correct, then the lotus of *Od.* iv. 603-604 is quite a different plant, a kind of clover. Now Strabo (xvii. 829*a*) calls the lotus πόαν τινὰ καὶ ῥίζαν. Putting these two references together with Sulpicius Severus, *Dialogi* i. 4. 4, R. M. Henry suggests that the Homeric lotus was really the πόα of Strabo, *i.e.* a kind of clover (*Classical Review*, December 1906, p. 435).

LOTZE, RUDOLF HERMANN (1817-1881), German philosopher, was born in Bautzen on the 21st of May 1817, the son of a physician. He received his education in the gymnasium of Zittau under teachers who inspired him with an enduring love of the classical authors, as we see from his translation of the *Antigone* of Sophocles into Latin verse, published when he had reached middle life. He went to the university of Leipzig as a student of philosophy and natural sciences, but entered officially as a student of medicine. He was then only seventeen. It appears that thus early Lotze's studies were governed by two distinct interests. The first was scientific, based upon mathematical and physical studies under the guidance of E. H. Weber, W. Volckmann and G. T. Fechner. The other was his aesthetical and artistic interest, which was developed under the care of C. H. Weisse. To the former he owes his appreciation of exact investigation and a complete knowledge of the aims of science, to the latter an equal admiration for the great circle of ideas which had been diffused by the teaching of Fichte, Schelling and Hegel. Each of these influences, which early in life must have been familiar to him, tempered and modified the other. The true method of science which he possessed forced him to condemn as useless the entire form which Schelling's and Hegel's expositions had adopted, especially the dialectic method of the latter, whilst his love of art and beauty, and his appreciation of moral purposes, revealed to him the existence of a trans-phenomenal world of values into which no exact science could penetrate. It is evident how this initial position at once defined to him the tasks which philosophy had to perform. First there were the natural sciences, themselves only just emerging from a confused conception of their true method; especially those which studied the borderland of physical and mental phenomena, the medical sciences; and pre-eminently that science which has since become so popular, the science of biology.

Lotze's first essay was his dissertation *De futurae biologiae principibus philosophicis*, with which he gained (1838) the degree of doctor of medicine, after having only four months previously got the degree of doctor of philosophy. Then, secondly, there arose the question whether the methods of exact science sufficed to explain the connexion of phenomena, or whether for the explanation of this the thinking mind was forced to resort to some hypothesis not immediately verifiable by observation, but dictated by higher aspirations and interests. And, if to satisfy these we were forced to maintain the existence of a world of moral standards, it was, thirdly, necessary to form some opinion as to the relation of these moral standards of value to the forms and facts of phenomenal existence. These different tasks, which philosophy had to fulfil, mark pretty accurately the aims of Lotze's writings, and the order in which they were published. He laid the foundation of his philosophical system very early in his *Metaphysik* (Leipzig, 1841) and his *Logik* (1843), short books published while he was still a junior lecturer at Leipzig, from which university he migrated to Göttingen, succeeding Herbart in the chair of philosophy. But it was only during the last decade of his life that he ventured, with much hesitation, to present his ideas in a systematic and final form. The two books mentioned remained unnoticed by the reading public, and Lotze first became known to a larger circle through a series of works which aimed at establishing in the study of the physical and mental phenomena of the human organism in its normal and diseased states the same general principles which had been adopted in the investigation of inorganic phenomena. These works were his *Allgemeine Pathologie und Therapie als mechanische Naturwissenschaften* (Leipzig, 1842, 2nd ed., 1848), the articles "Lebenskraft" (1843) and "Seele und Seelenleben" (1846) in Rud. Wagner's *Handwörterbuch der Physiologie*, his *Allgemeine Physiologie des Körperlichen Lebens* (Leipzig, 1851), and his *Medizinische Psychologie oder Physiologie der Seele* (Leipzig, 1852).

When Lotze published these works, medical science was still much under the influence of Schelling's philosophy of nature. The mechanical laws, to which external things were subject, were conceived as being valid only in the inorganic world; in the organic and mental worlds these mechanical laws were conceived as being disturbed or overridden by other powers, such as the influence of final causes, the existence of types, the work of vital and mental forces. This confusion Lotze, who had been trained in the school of mathematical reasoning, tried to dispel. The laws which govern particles of matter in the inorganic world govern them likewise if they are joined into an organism. A phenomenon *a*, if followed by *b* in the one case, is followed by the same *b* also in the other case. Final causes, vital and mental forces, the soul itself can, if they act at all, only act through the inexorable mechanism of natural laws. As we therefore have only to do with the study of existing complexes of material and spiritual phenomena, the changes in these must be explained in science by the rule of mechanical laws, such as obtain everywhere in the world, and only by such. One of the results of these investigations was to extend the meaning of the word mechanism, and comprise under it all laws which obtain in the phenomenal world, not excepting the phenomena of life and mind. Mechanism was the unalterable connexion of every phenomenon a with other phenomena *b*, *c*, *d*, either as following or preceding it; mechanism was the inexorable form into which the events of this world are cast, and by which they are connected. The object of those writings was to establish the all-pervading rule of mechanism. But the mechanical view of nature is not identical with the materialistic. In the last of the above-mentioned works the question is discussed at great length how we have to consider mind, and the relation between mind and body; the answer is—we have to consider mind as an immaterial principle, its action, however, on the body and vice versa as purely mechanical, indicated by the fixed laws of a psycho-physical mechanism. These doctrines of Lotze—though pronounced with the distinct and reiterated reserve that they did not contain a solution of the philosophical question regarding the nature, origin, or deeper meaning of this all-pervading mechanism, neither an explanation how the action of external things on each other takes place nor yet of the relation of mind and body, that they were merely a preliminary formula of practical scientific value, itself requiring a deeper interpretation—these doctrines were nevertheless by many considered to be the last word of the philosopher who, denouncing the reveries of Schelling or the idealistic theories of Hegel, established the science of life and mind on the same basis as that of material things. Published as they were during the years when the modern school of German materialism was at its height,[1] these works of Lotze were counted among the opposition literature which destroyed the phantom of Hegelian wisdom and vindicated the independent and self-sufficing position of empirical philosophy. Even philosophers of the eminence of I. H. Fichte (the younger) did not escape this misinterpretation of Lotze's true meaning, though they had his *Metaphysik* and *Logik* to refer to, though he promised in his *Allgemeine Physiologie* (1851) to enter in a subsequent work upon the "bounding province between aesthetics and physiology," and though in his *Medizinische Psychologie* he had distinctly stated that his position was neither the idealism of Hegel nor the realism of Herbart, nor materialism, but that it was the conviction that the essence of everything is the part it plays in the realization of some idea which is in itself valuable, that the sense of an all-pervading mechanism is to be sought in this, that it denotes the ways and means by which the highest idea, which we may call the idea of the good, has voluntarily chosen to realize itself.

The misinterpretations which he had suffered induced Lotze to publish a small pamphlet of a polemical character (*Streitschriften*, Leipzig, 1857), in which he corrected two mistakes. The opposition which he had made to Hegel's formalism had induced some to associate him with the materialistic school, others to count him among the followers of Herbart. Lotze publicly and formally denied that he belonged to the school of Herbart, though he admitted that historically the same doctrine which might be considered the forerunner of Herbart's teachings might lead to his own views, viz. the monadology of Leibnitz.

When Lotze wrote these explanations, he had already given to the world the first volume of his great work, *Mikrokosmus* (vol. i. 1856, vol. ii. 1858, vol. iii. 1864; 3rd ed., 1876-1880). In many passages of his works on pathology, physiology, and psychology Lotze had distinctly stated that the method of research which he advocated there did not give an explanation of the phenomena of life and mind, but only the means of observing and connecting them together; that the meaning of all phenomena, and the reason of their peculiar connexions, was a philosophical problem which required to be attacked from a different point of view; and that the significance especially which lay in the phenomena of life and mind would only unfold itself if by an exhaustive survey of the entire life of man, individually, socially, and historically, we gain the necessary data for

deciding what meaning attaches to the existence of this microcosm, or small world of human life, in the macrocosm of the universe. This review, which extends, in three volumes, over the wide field of anthropology, beginning with the human frame, the soul, and their union in life, advancing to man, his mind, and the course of the world, and concluding with history, progress, and the connexion of things, ends with the same idea which was expressed in Lotze's earliest work, his *Metaphysik*. The view peculiar to him is reached in the end as the crowning conception towards which all separate channels of thought have tended, and in the light of which the life of man in nature and mind, in the individual and in society, had been surveyed. This view can be briefly stated as follows: Everywhere in the wide realm of observation we find three distinct regions,—the region of facts, the region of laws and the region of standards of value. These three regions are separate only in our thoughts, not in reality. To comprehend the real position we are forced to the conviction that the world of facts is the field in which, and that laws are the means by which, those higher standards of moral and aesthetical value are being realized; and such a union can again only become intelligible through the idea of a personal Deity, who in the creation and preservation of a world has voluntarily chosen certain forms and laws, through the natural operation of which the ends of His work are gained.

Whilst Lotze had thus in his published works closed the circle of his thought, beginning with a conception metaphysically gained, proceeding to an exhaustive contemplation of things in the light it afforded, and ending with the stronger conviction of its truth which observation, experience, and life could afford, he had all the time been lecturing on the various branches of philosophy according to the scheme of academical instruction transmitted from his predecessors. Nor can it be considered anything but a gain that he was thus induced to expound his views with regard to those topics, and in connexion with those problems, which were the traditional forms of philosophical utterance. His lectures ranged over a wide field: he delivered annually lectures on psychology and on logic (the latter including a survey of the entirety of philosophical research under the title *Encyclopädie der Philosophie*), then at longer intervals lectures on metaphysics, philosophy of nature, philosophy of art, philosophy of religion, rarely on history of philosophy and ethics. In these lectures he expounded his peculiar views in a stricter form, and during the last decade of his life he embodied the substance of those courses in his *System der Philosophie*, of which only two volumes have appeared (vol. i. *Logik*, 1st ed., Leipzig, 1874, 2nd ed., 1880; vol. ii. *Metaphysik*, 1879). The third and concluding volume, which was to treat in a more condensed form the principal problems of practical philosophy, of philosophy of art and religion, never appeared. A small pamphlet on psychology, containing the last form in which he had begun to treat the subject in his lectures (abruptly terminated through his death on the 1st of July 1881) during the summer session of 1881, has been published by his son. Appended to this volume is a complete list of Lotze's writings, compiled by Professor Rehnisch of Göttingen.

To understand this series of Lotze's writings, it is necessary to begin with his definition of philosophy. This is given after his exposition of logic has established two points, viz. the existence in our mind of certain laws and forms according to which we connect the material supplied to us by our senses, and, secondly, the fact that logical thought cannot be usefully employed without the assumption of a further set of connexions, not logically necessary, but assumed to exist between the data of experience and observation. These connexions of a real not formal character are handed to us by the separate sciences and by the usage and culture of everyday life. Language has crystallized them into certain definite notions and expressions, without which we cannot proceed a single step, but which we have accepted without knowing their exact meaning, much less their origin. In consequence the special sciences and the wisdom of common life entangle themselves easily and frequently in contradictions. A problem of a purely formal character thus presents itself, viz. this—to try to bring unity and harmony into the scattered thoughts of our general culture, to trace them to their primary assumptions and follow them into their ultimate consequences, to connect them all together, to remodel, curtail or amplify them, so as to remove their apparent contradictions, and to combine them in the unity of an harmonious view of things, and especially to investigate those conceptions which form the initial assumptions of the several sciences, and to fix the limits of their applicability. This is the formal definition of philosophy. Whether an harmonious conception thus gained will represent more than an agreement among our thoughts, whether it will represent the real connexion of things and thus possess objective not merely subjective value, cannot be decided at the outset. It is also unwarranted to start with the expectation that everything in the world should be explained by one principle, and it is a needless restriction of our means to expect unity of method. Nor are we able to start our philosophical investigations by an inquiry into the nature of human thought and its capacity to attain an objective knowledge, as in this case we would be actually using that instrument the usefulness of which we were trying to determine. The main proof of the objective value of the view we may gain will rather lie in the degree in which it succeeds in assigning to every element of culture its due position, or in which it is able to appreciate and combine different and apparently opposite tendencies and interests, in the sort of justice with which it weighs our manifold desires and aspirations, balancing them in due proportions, refusing to sacrifice to a one-sided principle any truth or conviction which experience has proven to be useful and necessary. The investigations will then naturally divide themselves into three parts, the first of which deals with those to our mind inevitable forms in which we are obliged to think about things, if we think at all (metaphysics), the second being devoted to the great region of facts, trying to apply the results of metaphysics to these, specially the two great regions of external and mental phenomena (cosmology and psychology), the third dealing with those standards of value from which we pronounce our aesthetical or ethical approval or disapproval. In each department we shall have to aim first of all at views clear and consistent within themselves, but, secondly, we shall in the end wish to form some general idea or to risk an opinion how laws, facts and standards of value may be combined in one comprehensive view. Considerations of this latter kind will naturally present themselves in the two great departments of cosmology and psychology, or they may be delegated to an independent research under the name of religious philosophy. We have already mentioned the final conception in which Lotze's speculation culminates, that of a personal Deity, Himself the essence of all that merits existence for its own sake, who in the creation and government of a world has voluntarily chosen certain laws and forms through which His ends are to be realized. We may add that according to this view nothing is real but the living spirit of God and the world of living spirits which He has created; the things of this world have only reality in so far as they are the appearance of spiritual substance, which underlies everything. It is natural that Lotze, having this great and final conception always before him, works under its influence from the very beginning of his speculations, permitting us, as we progress, to gain every now and then a glimpse of that interpretation of things which to him contains the solution of our difficulties.

The key to Lotze's theoretical philosophy lies in his metaphysics, to the exposition of which important subject the first and last of his larger publications have been devoted. To understand Lotze's philosophy, a careful and repeated perusal of these works is absolutely necessary. The object of his metaphysics is so to remodel the current notions regarding the existence of things and their connexions with which the usage of language supplies us as to make them consistent and thinkable. The further assumption, that the modified notions thus gained have an objective meaning, and that they somehow correspond to the real order of the existing world which of course they can never actually describe, depends upon a general confidence which we must have in our reasoning powers, and in the significance of a world in which we ourselves with all the necessary courses of our thoughts have a due place assigned. The principle therefore of these investigations is opposed to two attempts frequently repeated in the history of philosophy, viz.: (1) the attempt to establish general laws or forms, which the development of things must have obeyed, or which a Creator must have followed in the creation of a world (Hegel); and (2) the attempt to trace the genesis of our notions and decide as to their meaning and value (modern theories of knowledge). Neither of these attempts is practicable. The world of many things surrounds us; our notions, by which we manage correctly or incorrectly to describe it, are also ready made. What remains to be done is, not to explain how such a world manages to be what it is, nor how we came to form these notions, but merely this—to expel from the circle and totality of our conceptions those abstract notions which are inconsistent and jarring, or to remodel and define them so that they may constitute a consistent and harmonious view. In this endeavour Lotze discards as useless and untenable many favourite conceptions of the school, many crude notions of everyday life. The course of things and their connexion is only thinkable by the assumption of a plurality of existences, the reality of which (as distinguished from our knowledge of them) can be conceived only as a multitude of relations. This quality of standing in relation to other things is that which gives to a thing its reality. And the nature of this reality again can neither be consistently represented as a fixed and hard substance nor as an unalterable something, but only as a fixed order of recurrence of continually changing events or impressions. But, further, every attempt to think clearly what those relations are, what we really mean, if we talk of a fixed order of events, forces upon us the

necessity of thinking also that the different things which stand in relations or the different phases which follow each other cannot be merely externally strung together or moved about by some indefinable external power, in the form of some predestination or inexorable fate. The things themselves which exist and their changing phases must stand in some internal connexion; they themselves must be active or passive, capable of doing or suffering. This would lead to the view of Leibnitz, that the world consists of monads, self-sufficient beings, leading an inner life. But this idea involves the further conception of Leibnitz, that of a pre-established harmony, by which the Creator has taken care to arrange the life of each monad, so that it agrees with that of all others. This conception, according to Lotze, is neither necessary nor thoroughly intelligible. Why not interpret at once and render intelligible the common conception originating in natural science, viz. that of a system of laws which governs the many things? But, in attempting to make this conception quite clear and thinkable, we are forced to represent the connexion of things as a universal substance, the essence of which we conceive as a system of laws which underlies everything and in its own self connects everything, but imperceptible, and known to us merely through the impressions it produces on us, which we call things. A final reflection then teaches us that the nature of this universal and all-pervading substance can only be imagined by us as something analogous to our own mental life, where alone we experience the unity of a substance (which we call self) preserved in the multitude of its (mental) states. It also becomes clear that only where such mental life really appears need we assign an independent existence, but that the purposes of everyday life as well as those of science are equally served if we deprive the material things outside of us of an independence, and assign to them merely a connected existence through the universal substance by the action of which alone they can appear to us.

The universal substance, which we may call the absolute, is at this stage of our investigations not endowed with the attributes of a personal Deity, and it will remain to be seen by further analysis in how far we are able—without contradiction—to identify it with the object of religious veneration, in how far that which to metaphysics is merely a postulate can be gradually brought nearer to us and become a living power. Much in this direction is said by Lotze in various passages of his writings; anything complete, however, on the subject is wanting. Nor would it seem as if it could be the intention of the author to do much more than point out the lines on which the further treatment of the subject should advance. The actual result of his personal inquiries, the great idea which lies at the foundation of his philosophy, we know. It may be safely stated that Lotze would allow much latitude to individual convictions, as indeed it is evident that the empty notion of an absolute can only become living and significant to us in the same degree as experience and thought have taught us to realize the seriousness of life, the significance of creation, the value of the beautiful and the good, and the supreme worth of personal holiness. To endow the universal substance with moral attributes, to maintain that it is more than the metaphysical ground of everything, to say it is the perfect realization of the holy, the beautiful and the good, can only have a meaning for him who feels within himself what real not imaginary values are clothed in those expressions.

We have still to mention that aesthetics formed a principal and favourite study of Lotze's, and that he has treated this subject also in the light of the leading ideas of his philosophy. See his essays *Ueber den Begriff der Schönheit* (Göttingen, 1845) and *Ueber Bedingungen der Kunstschönheit*, ibid. (1847); and especially his *Geschichte der Aesthetik in Deutschland* (Munich, 1868).

Lotze's historical position is of much interest. Though he disclaims being a follower of Herbart, his formal definition of philosophy and his conception of the object of metaphysics are similar to those of Herbart, who defines philosophy as an attempt to remodel the notions given by experience. In this endeavour he forms with Herbart an opposition to the philosophies of Fichte, Schelling and Hegel, which aimed at objective and absolute knowledge, and also to the criticism of Kant, which aimed at determining the validity of all human knowledge. But this formal agreement includes material differences, and the spirit which breathes in Lotze's writings is more akin to the objects and aspirations of the idealistic school than to the cold formalism of Herbart. What, however, with the idealists was an object of thought alone, the absolute, is to Lotze only inadequately definable in rigorous philosophical language; the aspirations of the human heart, the contents of our feelings and desires, the aims of art and the tenets of religious faith must be grasped in order to fill the empty idea of the absolute with meaning. These manifestations of the divine spirit again cannot be traced and understood by reducing (as Hegel did) the growth of the human mind in the individual, in society and in history to the monotonous rhythm of a speculative schematism; the essence and worth which is in them reveals itself only to the student of detail, for reality is larger and wider than philosophy; the problem, "how the one can be many," is only solved for us in the numberless examples in life and experience which surround us, for which we must retain a lifelong interest and which constitute the true field of all useful human work. This conviction of the emptiness of terms and abstract notions, and of the fulness of individual life, has enabled Lotze to combine in his writings the two courses into which German philosophical thought had been moving since the death of its great founder, Leibnitz. We may define these courses by the terms esoteric and exoteric—the former the philosophy of the school, cultivated principally at the universities, trying to systematize everything and reduce all our knowledge to an intelligible principle, losing in this attempt the deeper meaning of Leibnitz's philosophy; the latter the unsystematized philosophy of general culture which we find in the work of the great writers of the classical period, Lessing, Winkelmann, Goethe, Schiller and Herder, all of whom expressed in some degree their indebtedness to Leibnitz. Lotze can be said to have brought philosophy out of the lecture-room into the market-place of life. By understanding and combining what was great and valuable in those divided and scattered endeavours, he became the true successor of Leibnitz.

The age in which Lotze lived and wrote in Germany was not one peculiarly fitted to appreciate the position he took up. 26
Frequently misunderstood, yet rarely criticized, he was nevertheless greatly admired, listened to by devoted hearers and read by an increasing circle. But this circle never attained to the unity of a philosophical school. The real meaning of Lotze's teaching is reached only by patient study, and those who in a larger or narrower sense call themselves his followers will probably feel themselves indebted to him more for the general direction he has given to their thoughts, for the tone he has imparted to their inner life, for the seriousness with which he has taught them to consider even small affairs and practical duties, and for the indestructible confidence with which his philosophy permits them to disregard the materialism of science, the scepticism of shallow culture, the disquieting results of philosophical and historical criticism.

See E. Pfleiderer, *Lotze's philosophische Weltanschauung nach ihren Grundzügen* (Berlin, 1882; 2nd ed., 1884); E. von Hartmann, *Lotze's Philosophie* (Leipzig, 1888); O. Caspari, *H. Lotze in seiner Stellung zu der durch Kant begründeten neuesten Geschichte der Philosophie* (Breslau, 1883; 2nd ed., 1894); R. Falckenberg, *Hermann Lotze* (Stuttgart, 1901); Henry Jones, *A Critical Account of the Philosophy of Lotze* (Glasgow, 1895); Paul Lange, *Die Lehre vom Instincte bei Lotze und Darwin* (Berlin, 1896); A. Lichtenstein, *Lotze und Wundt* (Bern, 1900).

(J. T. M.; H. St.)

1 See Vogt, *Physiologische Briefe* (1845-1847); Moleschott, *Der Kreislauf des Lebens* (1852); Büchner, *Kraft und Stoff* (1855).

LOUBET, ÉMILE FRANÇOIS (1838-), 7th president of the French republic, was born on the 30th of December 1838, the son of a peasant proprietor at Marsanne (Drôme), who was more than once mayor of Marsanne. He was admitted to the Parisian bar in 1862, and took his doctorate-in-law next year. He was still a student when he witnessed the sweeping triumph of the Republican party in Paris at the general election in 1863. He settled down to the exercise of his profession in Montélimar, where he married in 1869 Marie Louis Picard. He also inherited a small estate at Grignan. At the crisis of 1870 he became mayor of Montélimar, and thenceforward was a steady supporter of Gambetta's policy. Elected to the Chamber of Deputies in 1876 by Montélimar he was one of the famous 363 who in June 1877 passed the vote of want of confidence in the ministry of the duc de Broglie. In the general election of October he was re-elected, local enthusiasm for

him being increased by the fact that the government had driven him from the mayoralty. In the Chamber he occupied himself especially with education, fighting the clerical system established by the Loi Falloux, and working for the establishment of free, obligatory and secular primary instruction. In 1880 he became president of the departmental council in Drôme. His support of the second Jules Ferry ministry and his zeal for the colonial expansion of France gave him considerable weight in the moderate Republican party. He had entered the Senate in 1885, and he became minister of public works in the Tirard ministry (December 1887 to March 1888). In 1892 President Sadi Carnot, who was his personal friend, asked him to form a cabinet. Loubet held the portfolio of the interior with the premiership, and had to deal with the anarchist crimes of that year and with the great strike of Carmaux, in which he acted as arbitrator, giving a decision regarded in many quarters as too favourable to the strikers. He was defeated in November on the question of the Panama scandals, but he retained the ministry of the interior in the next cabinet under Alexandre Ribot, though he resigned on its reconstruction in January. His reputation as an orator of great force and lucidity of exposition and as a safe and honest statesman procured for him in 1896 the presidency of the Senate, and in February 1899 he was chosen president of the republic in succession to Félix Fauré by 483 votes as against 279 recorded by Jules Méline, his only serious competitor. He was marked out for fierce opposition and bitter insult as the representative of that section of the Republican party which sought the revision of the Dreyfus case. On the day of President Faure's funeral Paul Déroulède met the troops under General Roget on their return to barracks, and demanded that the general should march on the Élysée. Roget sensibly took his troops back to barracks. At the Auteuil steeplechase in June the president was struck on the head with a cane by an anti-Dreyfusard. In that month President Loubet summoned Waldeck-Rousseau to form a cabinet, and at the same time entreated Republicans of all shades of opinion to rally to the defence of the state. By the efforts of Loubet and Waldeck-Rousseau the Dreyfus affair was settled, when Loubet, acting on the advice of General Galliffet, minister of war, remitted the ten years' imprisonment to which Dreyfus was condemned at Rennes. Loubet's presidency saw an acute stage of the clerical question, which was attacked by Waldeck-Rousseau and in still more drastic fashion by the Combes ministry. The French ambassador was recalled from the Vatican in April 1905, and in July the separation of church and state was voted in the Chamber of Deputies. Feeling had run high between France and England over the mutual criticisms passed on the conduct of the South African War and the Dreyfus case respectively. These differences were composed by the Anglo-French *entente*, and in 1904 a convention between the two countries secured the recognition of French claims in Morocco in exchange for non-interference with the English occupation of Egypt. President Loubet was a typical example of the peasant-proprietor class, and had none of the aristocratic, not to say monarchical, proclivities of President Fauré. He inaugurated the Paris Exhibition of 1900, received the tsar Nicholas II. in September 1901 and paid a visit to Russia in 1902. He also exchanged visits with King Edward VII., with the king of Italy and the king of Spain. The king of Spain's visit in 1905 was the occasion of an attempt on his life, a bomb being thrown under his carriage as he was proceeding with his guest to the opera. His presidency came to an end in January 1906, when he retired into private life.

LOUDON, ERNST GIDEON, Freiherr von (1717-1790), Austrian soldier, was born at Tootzen in Livonia, on the 2nd of February 1717. His family, of Scottish origin,[1] had been settled in that country since before 1400. His father was a lieutenant-colonel, retired on a meagre pension from the Swedish service, and the boy was sent in 1732 into the Russian army as a cadet. He took part in Field Marshal Münnich's siege of Danzig in 1734, in the march of a Russian corps to the Rhine in 1735 and in the Turkish war 1738-1739. Dissatisfied with his prospects he resigned in 1741 and sought military employment elsewhere. He applied first to Frederick the Great, who declined his services. At Vienna he had better fortune, being made a captain in Trenck's free corps. He took part in its forays and marches, though not in its atrocities, until wounded and taken prisoner in Alsace. He was shortly released by the advance of the main Austrian army. His next active service, still under Trenck, was in the Silesian mountains in 1745, in which campaign he greatly distinguished himself as a leader of light troops. He was present also at Soor. He retired shortly afterwards, owing to his distaste for the lawless habits of his comrades in the irregulars, and after long waiting in poverty for a regular commission he was at last made a captain in one of the frontier regiments, spending the next ten years in half-military, half-administrative work in the Carlstadt district. At Bunich, where he was stationed, he built a church and planted an oak forest now called by his name. He had reached the rank of lieutenant-colonel when the outbreak of the Seven Years' War called him again into the field. From this point began his fame as a soldier. Soon promoted colonel, he distinguished himself repeatedly and was in 1757 made a General-feldwacht-meister (major-general of cavalry) and a knight of the newly founded order of Maria Theresa. In the campaign of 1758 came his first opportunity for fighting an action as a commander-in-chief, and he used it so well that Frederick the Great was obliged to give up the siege of Olmütz and retire into Bohemia (action of Dom-stadtl, 30th of June). He was rewarded with the grade of lieutenant-field-marshal and having again shown himself an active and daring commander in the campaign of Hochkirch, he was created a Freiherr in the Austrian nobility by Maria Theresa and in the peerage of the Holy Roman Empire by her husband the emperor Francis. Maria Theresa gave him, further, the grand cross of the order she had founded and an estate near Kuttenberg in Bohemia. He was placed in command of the Austrian contingent sent to join the Russians on the Oder. At Kunersdorf he turned defeat into a brilliant victory, and was promoted Feldzeugmeister and made commander-in-chief in Bohemia, Moravia and Silesia. In 1760 he destroyed a whole corps of Frederick's army under Fouqué at Landshut and stormed the important fortress of Glatz. In 1760 he sustained a reverse at Frederick's hands in the battle of Liegnitz (Aug. 15th, 1760), which action led to bitter controversy with Daun and Lacy, the commanders of the main army, who, Loudon claimed, had left his corps unsupported. In 1761 he operated, as usual, in Silesia, but he found his Russian allies as timid as they had been after Kunersdorf, and all attempts against Frederick's entrenched camp of Bunzelwitz (see Seven Years' War) failed. He brilliantly seized his one fleeting opportunity, however, and stormed Schweidnitz on the night of Sept. 30/October 1st, 1761. His tireless activity continued to the end of the war, in conspicuous contrast with the temporizing strategy of Daun and Lacy. The student of the later campaigns of the Seven Years' War will probably admit that there was need of more aggressiveness than Daun displayed, and of more caution than suited Loudon's genius. But neither recognized this, and the last three years of the war are marked by an ever-increasing friction between the "Fabius" and the "Marcellus," as they were called, of the Austrian army.

After the peace, therefore, when Daun became the virtual commander-in-chief of the army, Loudon fell into the background. Offers were made, by Frederick the Great amongst others, to induce Loudon to transfer his services elsewhere. Loudon did not entertain these proposals, although negotiations went on for some years, and on Lacy succeeding Daun as president of the council of war Loudon was made inspector-general of infantry. Dissensions, however, continued between Loudon and Lacy, and on the accession of Joseph II., who was intimate with his rival, Loudon retired to his estate near Kuttenberg. Maria Theresa and Kaunitz caused him, however, to be made commander-in-chief in Bohemia and Moravia in 1769. This post he held for three years, and at the end of this time, contemplating retirement from the service, he settled again on his estate. Maria Theresa once more persuaded him to remain in the army, and, as his estate had diminished in value owing to agrarian troubles in Bohemia, she repurchased it from him (1776) on generous terms. Loudon then settled at Hadersdorf near Vienna, and shortly afterwards was made a field-marshal. Of this Carlyle (*Frederick the Great*) records that when Frederick the Great met Loudon in 1776 he deliberately addressed him in the emperor's presence as "Herr Feldmarschall." But the hint was not taken until February 1778.

In 1778 came the War of the Bavarian Succession. Joseph and Lacy were now reconciled to Loudon, and Loudon and Lacy commanded the two armies in the field. On this occasion, however, Loudon seems to have in a measure fallen below his

reputation, while Lacy, who was opposed to Frederick's own army, earned new laurels. For two years after this Loudon lived quietly at Hadersdorf, and then the reverses of other generals in the Turkish War called him for the last time into the field. Though old and broken in health, he was commander-in-chief in fact as well as in name, and he won a last brilliant success by capturing Belgrade in three weeks, 1789. He died within the year, on the 14th of July at Neu-Titschein in Moravia, still on duty. His last appointment was that of commander-in-chief of the armed forces of Austria, which had been created for him by the new emperor Leopold. Loudon was buried in the grounds of Hadersdorf. Eight years before his death the emperor Joseph had caused a marble bust of this great soldier to be placed in the chamber of the council of war.

His son Johann Ludwig Alexius, Freiherr von Loudon (1762-1822) fought in the Revolutionary and Napoleonic Wars with credit, and rose to the rank of lieutenant-field-marshal.

See memoir by v. Arneth in *Allgemeine deutsche Biographie*, s.v. "Laudon," and life by G. B. Malleson.

1 His name is phonetically spelt Laudon or Laudohn by Germans, and the latter form was that adopted by himself and his family. In 1759, however, he reverted to the original Scottish form.

LOUDOUN, JOHN CAMPBELL, 1st Earl of (1598-1663), Scottish politician, eldest son of Sir James Campbell of Lawers, became Baron Loudoun in right of his wife Margaret, granddaughter of Hugh Campbell, 1st Baron Loudoun (d. 1622). He was created earl on the 12th of May 1633, but in consequence of his opposition to Charles I.'s church policy in Scotland the patent was stopped in Chancery. In 1637 he was one of the supplicants against the introduction of the English liturgy; and with John Leslie, 6th earl of Rothes, he took a leading part in the promulgation of the Covenant and in the General Assembly which met at Glasgow in the autumn of 1638. He served under General Leslie, and was one of the Scottish commissioners at the Pacification of Berwick in June 1639. In November of that year and again in 1640 the Scottish estates sent Loudoun with Charles Seton, 2nd earl of Dunfermline, to London on an embassy to Charles I. Loudoun intrigued with the French ambassador and with Thomas Savile, afterwards earl of Sussex, but without much success. He was in London when John Stewart, earl of Traquair, placed in Charles's hands a letter signed by Loudoun and six others and addressed to Louis XIII. In spite of his protest that the letter was never sent, and that it would in any case be covered by the amnesty granted at Berwick, he was sent to the Tower. He was released in June, and two months later he re-entered England with the Scottish invading army, and was one of the commissioners at Ripon in October. In the following August (1641) Charles opened parliament at Edinburgh in person, and in pursuance of a policy of conciliation towards the leaders of the Covenant Loudoun was made lord chancellor of Scotland, and his title of earl of Loudoun was allowed. He also became first commissioner of the treasury. In 1642 he was sent by the Scottish council to York to offer to mediate in the dispute between Charles and the parliament, and later on to Oxford, but in the second of these instances Charles refused to accept his authority. He was constantly employed in subsequent negotiations, and in 1647 was sent to Charles at Carisbrooke Castle, but the "Engagement" to assist the king there made displeased the extreme Covenanters, and Loudoun was obliged to retract his support of it. He was now entirely on the side of the duke of Argyll and the preachers. He assisted in the capacity of lord chancellor at Charles II.'s coronation at Scone, and was present at Dunbar. He joined in the royalist rising of 1653, but eventually surrendered to General Monk. His estates were forfeited by Cromwell, and a sum of money settled on the countess and her heirs. At the Restoration he was removed from the chancellorship, but a pension of £1000 granted him by Charles I. in 1643 was still allowed him. In 1662 he was heavily fined. He died in Edinburgh on the 15th of March 1663.

The earl's elder son, James (d. 1684), 2nd earl of Loudoun, passed his life out of Great Britain, and when he died at Leiden was succeeded by his son Hugh (d. 1731). The 3rd earl held various high positions in England and Scotland, being chosen one of the representative peers for Scotland at the union of the parliaments in 1707. He rendered good service to the government during the rising of 1715, especially at the battle of Sheriffmuir, and was succeeded as 4th earl by his son John (1705-1782), who fought against the Jacobites in 1745, was commander-in-chief of the British force in America in 1756 and died unmarried. The title then passed to James Mure Campbell (d. 1786), a grandson of the 2nd earl, and was afterwards borne by the marquesses of Hastings, descendants of the 5th earl's daughter and heiress, Flora (1780-1840). Again reverting to a female on the death of Henry, 4th marquess of Hastings, in 1868, it came afterwards to Charles (b. 1855), a nephew of this marquess, who became 11th earl of Loudoun.

LOUDUN, a town of western France, capital of an arrondissement in the department of Vienne, on an eminence overlooking a fertile plain, 45 m. by rail S.W. of Tours. Pop. (1906) 3931. It was formerly surrounded by walls, of which a single gateway and two towers remain. Of the old castle of the counts of Anjou which was destroyed under Richelieu, the site now forming a public promenade, a fine rectangular donjon of the 12th century is preserved; at its base traces of Roman constructions have been found, with fragments of porphyry pavement, mosaics and mural paintings. The Carmelite convent was the scene of the trial of Urban Grandier, who was burnt alive for witchcraft in 1634; the old Romanesque church of Sainte Croix, of which he was curé, is now used as a market. The church of St Pierre-du-Marché, Gothic in style with a Renaissance portal, has a lofty stone spire. There are several curious old houses in the town. Théophraste Renaudot (d. 1653), founder of the *Gazette de France*, was born at Loudun, where there is a statue of him. The manufacture of lace and upholstery trimming and of farm implements is carried on, and there is a considerable trade in agricultural products, wine, &c. Loudun (*Laudunum* in ancient times) was a town of importance during the religious wars and gave its name in 1616 to a treaty favourable to the Protestants.

LOUGHBOROUGH, a market town and municipal borough in the Loughborough (Mid) parliamentary division of Leicestershire, England, near the river Soar and on the Loughborough canal. Pop. (1901) 21,508. It is 110 m. N.N.W. of London by the Midland railway, and is served by the Great Central and a branch of the London and North-Western railways. The neighbourhood is a rich agricultural district, and to the S.W. lies the hilly tract known as Charnwood Forest. The church of All Saints stands on rising ground, and is a conspicuous object for many miles round; it is of Decorated work, and the tower

is Perpendicular. The other churches are modern. Public buildings include the town hall and exchange, town offices, county hall and free library. The grammar school, founded in 1495 under the charity of Thomas Burton, occupies modern buildings in pleasant grounds. There is also a girls' grammar school partly dependent on the same foundation. The principal industry is hosiery making; there are also engineering, iron and dye works and bell foundries. The great bell for St Paul's cathedral, London, was cast here in 1881. Loughborough was incorporated in 1888. Area, 3045 acres.

The manor of Loughborough (*Lucteburne*, *Lucteburg*, *Lughteburgh*) was granted by William the Conqueror to Hugh Lupus, from whom it passed to the Despensers. In 1226-1227 when it belonged to Hugh Despenser he obtained various privileges for himself and his men and tenants there, among which were quittance from suits at the county and hundred courts, of sheriffs' aids and of view of frankpledge, and also a market every Thursday and a fair on the vigil, day and morrow of St Peter ad vincula. The market rights were purchased by the town in 1880 from the trustees of Thomas Cradock, late lord of the manor. Edward II. visited the manor several times when it belonged to his favourite, Hugh Despenser the elder. Among the subsequent lords were Henry de Beaumont and Alice his wife, Sir Edward Hastings, created Baron Hastings of Loughborough in 1558, Colonel Henry Hastings, created baron in 1645, and the earls of Huntingdon. Alexander Wedderburn was created Baron Loughborough in 1780 when he became chief justice of the common pleas. During the 19th century most of the manorial rights were purchased by the local board. Loughborough was at first governed by a bailiff, afterwards by a local board, and was finally incorporated in 1888 under a mayor, 6 aldermen and 18 councillors. It has never been represented in parliament. Lace-making was formerly the chief industry, but machines for making lace set up in the town by John Heathcote were destroyed by the Luddites in 1816, and the manufacture lost its importance. Bell-founding was introduced in 1840. John Cleveland, the Royalist poet, was born at Loughborough in 1613, John Howe the painter in 1630 and Richard Pulteney the botanist in 1730.

See *Victoria County History, Leicestershire*; W. G. D. Fletcher, *Chapters in the History of Loughborough* (1883); Sir Thomas Pochin, "Historical Description of Loughborough" (1770) (vol. viii. of *Bibliotheca topographica Britannica*).

LOUGHREA, a market town of Co. Galway, Ireland, pleasantly situated on the N. shore of Lough Rea, 116 m. W. from Dublin by a branch from Attymon Junction on the Midland Great Western railway. Pop. (1901), 2815. There are slight remains of an Early English Carmelite friary dating *c.* 1300, which escaped the Dissolution. Loughrea is the seat of the Roman Catholic bishop of Clonfert, and has a cathedral built in 1900-1905. A part of the castle of Richard de Burgh, the founder of the friary, still survives, and there are traces of the town fortifications. In the neighbourhood are a cromlech and two ruined towers, and crannogs, or ancient stockaded islands, have been discovered in the lough. Apart from the surroundings of the lough, the neighbouring country is peculiarly desolate.

LOUGHTON, an urban district in the Epping parliamentary division of Essex, England, 11½ m. N.N.E. of Liverpool Street station, London, by the Great Eastern railway. Pop. (1901), 4730. This is one of the villages which has become the centre of a residential district, and is frequented by holiday-makers from London, owing to its proximity to the pleasant woodland scenery of Epping Forest. It lies on the eastern outskirts of the Forest, near the river Roding. There are several modern churches. The lordship of the manor was granted to Waltham Abbey. In the vicinity are large earthworks, probably of British origin, known as Loughton Camp.

LOUHANS, a town of east-central France in the old province of Franche-Comté, now capital of an arrondissement in the department of Saône-et-Loire, 34 m. N.N.E. of Mâcon by road. Pop. (1906), 3216. Its church has a fine tower of the 15th century, of which the balustrade is carved so as to form the first words of the Ave Maria. There are also a hospital of the 17th century with a collection of ancient earthenware, a town-hall of the 18th century and remains of ramparts of the 16th and 17th century. The town is the central market of the agricultural plain of Bresse; chickens form the chief article of commerce. There is also a large felt-hat manufactory.

LOUIS, or Lewis (from the Frankish *Chlodowîch*, *Chlodwig*, Latinized as *Chlodowius*, *Lodhuwicus*, *Lodhuvicus*, whence—in the Strassburg oath of 842—O. Fr. *Lodhuwigs*, then *Chlovis*, *Loys* and later *Louis*, whence Span. *Luiz* and—through the Angevin kings—Hungarian *Lájos*; cf. Ger. *Ludwig* or *Ludewig*, from O. H. Ger. *Hluduwîc*, *Hludwîg*, *Ludhuwîg*, M. H. Ger. *Ludewîc*; Ital. *Lodovico*), a masculine proper name, meaning "Fame-fight" or "Famous in fight," from old Frankish *chlud*, *chlod* (O. H. Ger. *hlud*, *hlod*), "fame," and *wîch* (O. H. Ger. *wîc.*, *wîg*, A.S. *wîg*) "war," "battle" (cf. Gr. Κλυτόμαχος). The name has been borne by numerous European sovereigns and others, of whom some are noticed below in the following order: (1) Roman emperors and Frankish and German kings, (2) kings of Bavaria, (3) kings of France, (4) kings of Hungary, (5) kings of Naples, (6) Louis of Nassau. (Louis Philippe, king of the French, is dealt with separately.)

LOUIS I. (778-840), surnamed the “Pious,” Roman emperor, third son of the emperor Charlemagne and his wife Hildegarde, was born at Chasseneuil in central France, and crowned king of Aquitaine in 781. He received a good education; but as his tastes were ecclesiastical rather than military, the government of his kingdom was mainly conducted by his counsellors. Louis, however, gained sound experience in warfare in the defence of Aquitaine, shared in campaigns against the Saxons and the Avars, and led an army to Italy in 792. In 794 or 795 he married Irmengarde, daughter of Ingram, count of Haspen. After the deaths of his two elder brothers, Louis, at his father’s command, crowned himself co-emperor at Aix-la-Chapelle on the 11th of September 813, and was formally associated in the government of the Empire, of which he became sole ruler, in the following January. He earned the surname of “Pious” by banishing his sisters and others of immoral life from court; by attempting to reform and purify monastic life; and by showing great liberality to the church. In October 816 he was crowned emperor at Reims by Pope Stephen IV.; and at Aix in July 817, he arranged for a division of his Empire among his sons. This was followed by a revolt of his nephew, Bernard, king of Italy; but the rising was easily suppressed, and Bernard was mutilated and killed. The emperor soon began to repent of this cruelty, and when his remorse had been accentuated by the death of his wife in 818, he pardoned the followers of Bernard and restored their estates, and in 822 did public penance at Attigny. In 819 he married Judith, daughter of Welf I., count of Bavaria, who in 823 bore him a son Charles, afterwards called the Bald. Judith made unceasing efforts to secure a kingdom for her child; and with the support of her eldest step-son Lothair, a district was carved out for Charles in 829. Discontent at this arrangement increased to the point of rebellion, which broke out the following year, provoked by Judith’s intrigues with Bernard, count of Barcelona, whom she had installed as her favourite at court. Lothair and his brother Pippin joined the rebels, and after Judith had been sent into a convent and Bernard had fled to Spain, an assembly was held at Compiègne, when Louis was practically deposed and Lothair became the real ruler of the Empire. Sympathy was, however, soon aroused for the emperor, who was treated as a prisoner, and a second assembly was held at Nimwegen in October 830 when, with the concurrence of his sons Pippin and Louis, he was restored to power and Judith returned to court.

Further trouble between Pippin and his father led to the nominal transfer of Aquitaine from Pippin to his brother Charles in 831. The emperor’s plans for a division of his dominions then led to a revolt of his three sons. Louis met them in June 833 near Kolmar, but owing possibly to the influence of Pope Gregory IV., who took part in the negotiations, he found himself deserted by his supporters, and the treachery and falsehood which marked the proceedings gave to the place the name of *Lügenfeld*, or the “field of lies.” Judith, charged with infidelity, was again banished; Louis was sent into the monastery of St Medard at Soissons; and the government of the Empire was assumed by his sons. The emperor was forced to confess his sins, and declare himself unworthy of the throne, but Lothair did not succeed in his efforts to make his father a monk. Sympathy was again felt for Louis, and when the younger Louis had failed to induce Lothair to treat the emperor in a more becoming fashion, he and Pippin took up arms on behalf of their father. The result was that in March 834 Louis was restored to power at St Denis; Judith once more returned to his side and the kingdoms of Louis and Pippin were increased. The struggle with Lothair continued until the autumn, when he submitted to the emperor and was confined to Italy. To make the restoration more complete, a great assembly at Diedenhofen declared the deposition of Louis to have been contrary to law, and a few days later he was publicly restored in the cathedral of Metz. In December 838 Pippin died, and a new arrangement was made by which the Empire, except Bavaria, the kingdom of Louis, was divided between Lothair, now reconciled to his father, and Charles. The emperor was returning from suppressing a revolt on the part of his son Louis, provoked by this disposition, when he died on the 20th of June 840 on an island in the Rhine near Ingelheim. He was buried in the church of St Arnulf at Metz. Louis was a man of strong frame, who loved the chase, and did not shrink from the hardships of war. He was, however, easily influenced and was unequal to the government of the Empire bequeathed to him by his father. No sustained effort was made to ward off the inroads of the Danes and others, who were constantly attacking the borders of the Empire. Louis, who is also called *Le Débonnaire*, counts as Louis I., king of France.

See *Annales Fuldenses*; *Annales Bertiniani*; Thegan, *Vita Hludowici*; the *Vita Hludowici* attributed to Astronomus; Ermoldus Nigellus, *In honorem Hludowici imperatoris*; Nithard, *Historiarum libri*, all in the *Monumenta Germaniae historica*. *Scriptores*, Bände i. and ii. (Hanover and Berlin, 1826 fol.); E. Mühlbacher, *Die Regesten des Kaiserreichs unter den Karolingern* (Innsbruck, 1881); and *Deutsche Geschichte unter den Karolingern* (Stuttgart, 1886); B. Simson, *Jahrbücher des fränkischen Reichs unter Ludwig dem Frommen* (Leipzig, 1874-1876); and E. Dümmler, *Geschichte des ostfränkischen Reiches* (Leipzig, 1887-1888).

(A. W. H.*)

LOUIS II. (825-875), Roman emperor, eldest son of the emperor Lothair I., was designated king of Italy in 839, and taking up his residence in that country was crowned king at Rome by Pope Sergius II. on the 15th of June 844. He at once preferred a claim to the rights of an emperor in the city, which was decisively rejected; but in 850 he was crowned joint emperor at Rome by Pope Leo IV., and soon afterwards married his cousin, Engelberga, a daughter of King Louis the German, and undertook the independent government of Italy. He took the field against the Saracens; quashed some accusations against Pope Leo; held a diet at Pavia; and on the death of his father in September 855 became sole emperor. The division of Lothair’s dominions, by which he obtained no territory outside Italy, aroused his discontent, and in 857 he allied himself with Louis the German against his brother Lothair, king of Lorraine, and King Charles the Bald. But after Louis had secured the election of Nicholas I. as pope in 858, he became reconciled with his brother, and received some lands south of the Jura in return for assistance given to Lothair in his efforts to obtain a divorce from his wife, Teutberga. In 863, on the death of his brother Charles, Louis received the kingdom of Provence, and in 864 came into collision with Pope Nicholas I. over his brother’s divorce. The archbishops, who had been deposed by Nicholas for proclaiming this marriage invalid, obtained the support of the emperor, who reached Rome with an army in February 864; but, having been seized with fever, he made peace with the pope and left the city. In his efforts to restore order in Italy, Louis met with considerable success both against the turbulent princes of the peninsula and against the Saracens who were ravaging southern Italy. In 866 he routed these invaders, but could not follow up his successes owing to the want of a fleet. So in 869 he made an alliance with the eastern emperor, Basil I., who sent him some ships to assist in the capture of Bari, the headquarters of the Saracens, which succumbed in 871. Meanwhile his brother Lothair had died in 869, and owing to his detention in southern Italy he was unable to prevent the partition of Lorraine between Louis the German and Charles the Bald. Some jealousy between Louis and Basil followed the victory at Bari, and in reply to an insult from the eastern emperor Louis attempted to justify his right to the title “emperor of the Romans.” He had withdrawn into Benevento to prepare for a further campaign, when he was treacherously attacked in his palace, robbed and imprisoned by Adelchis, prince of Benevento, in August 871. The landing of fresh bands of Saracens compelled Adelchis to release his prisoner a month later, and Louis was forced to swear he would take no revenge for this injury, nor ever enter Benevento with an army. Returning to Rome, he was released from his oath, and was crowned a second time as emperor by Pope Adrian II. on the 18th of May 872. He won further successes against the Saracens, who were driven from Capua, but the attempts of the emperor to punish Adelchis were not very successful. Returning to northern Italy, he died, somewhere in the province of Brescia, on the 12th of August 875, and was buried in the church of St Ambrose at Milan, having named as his successor in Italy his cousin Carloman, son of Louis the German. Louis was an excellent ruler, of whom it was said “in his time there was great peace, because every one could enjoy his own possessions.”

See *Annales Bertiniani*, *Chronica S. Benedicti Casinensis*, both in the *Monumenta Germaniae historica, Scriptores*, Bände i. and iii. (Hanover and Berlin, 1826 fol.); E. Mühlbacher, *Die Regesten des Kaiserreichs unter den Karolingern* (Innsbruck, 1881); Th. Sickel, *Acta regum et imperatorum Karolinorum, digesta et enarrata* (Vienna, 1867-1868); and E. Dümmler, *Geschichte des ostfränkischen Reiches* (Leipzig, 1887-1888).

(A. W. H.*)

LOUIS III. (*c.* 880-928), surnamed the "Blind," Roman emperor, was a son of Boso, king of Provence or Lower Burgundy, and Irmengarde, daughter of the emperor Louis II. The emperor Charles the Fat took Louis under his protection on the death of Boso in 887; but Provence was in a state of wild disorder, and it was not until 890, when Irmengarde had secured the support of the Bavarian king Arnulf and of Pope Stephen V., that Louis was recognized as king. In 900, after the death of the emperor Arnulf, he went to Italy to obtain the imperial crown. He was chosen king of the Lombards at Pavia, and crowned emperor at Rome in February 901 by Pope Benedict IV. He gained a temporary authority in northern Italy, but was soon compelled by his rival Berengar, margrave of Friuli, to leave the country and to swear he would never return. In spite of his oath he went again to Italy in 904, where he secured the submission of Lombardy; but on the 21st of July 905 he was surprised at Verona by Berengar, who deprived him of his sight and sent him back to Provence, where he passed his days in enforced inactivity until his death in September 928. He married Adelaide, possibly a daughter of Rudolph I., king of Upper Burgundy. His eldest son, Charles Constantine, succeeded to no more than the county of Vienne.

See *Forschungen zur deutschen Geschichte*, Bände ix. and x. (Göttingen, 1862-1886); E. Dümmler, *Geschichte des ostfränkischen Reichs* (Leipzig, 1887-1888); and *Gesta Berengarii imperatoris* (Halle, 1871); and F. de Gingins-la-Sarra. *Mémoires pour servir à l'histoire de Provence et de Bourgogne Jurane* (Zürich, 1851). 30

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LOUIS IV., or V. (*c.* 1287-1347), surnamed the Bavarian, Roman emperor and duke of Upper Bavaria, was the second son of Louis II., duke of Upper Bavaria and count palatine of the Rhine, and Matilda, daughter of the German king Rudolph I. Having lost his father in 1294 he inherited, jointly with his elder brother Rudolph, Upper Bavaria and the Palatinate, but passed his time mainly at the court of the Habsburgs in Vienna, while his early experiences of warfare were gained in the campaigns of his uncle, the German king Albert I. He was soon at variance with his brother over their joint possessions. Albert taking the part of Louis in this quarrel, Rudolph promised in 1301 to admit his brother to a share in the government of Bavaria and the Palatinate. When Albert was murdered in May 1308, Louis became a candidate for the German throne; but his claim was not strongly supported. The new king, Henry VII., was very friendly with Rudolph, and as the promise of 1301 had not been carried out, Louis demanded a partition of their lands. Upper Bavaria was accordingly divided in 1310, and Louis received the north-western part of the duchy; but Rudolph refused to surrender any part of the Palatinate. In 1310, on the death of Stephen I., duke of Lower Bavaria, Louis undertook the guardianship of his two young sons. This led to a war between the brothers, which lasted till June 1313, when peace was made at Munich. Many of the nobles in Lower Bavaria, however, angered at Louis, called in the aid of Frederick I. (the Fair), duke of Austria; but he was defeated at Gammelsdorf on the 9th of November 1313, a victory which not only led to peace, but conferred considerable renown on Louis.

In August 1313 the German throne had again become vacant, and Louis was chosen at Frankfort on the 20th of October 1314 by a majority of the electors, and his coronation followed at Aix-la-Chapelle on the 25th of November. A minority of princes had, however, supported Frederick of Austria; and a war followed between the rivals, during which Louis was supported by the cities and the districts of the middle and lower Rhine. His embarrassments were complicated by a renewal of the dispute with his brother; but when this had been disposed of in 1317 by Rudolph's renunciation of his claims on upper Bavaria and the Palatinate in consideration of a yearly subsidy, Louis was able to give undivided attention to the war with Frederick, and obtained several fresh allies. On the 28th of September 1322 a battle was fought at Mühldorf, which ended in a complete victory for Louis, owing mainly to the timely aid of Frederick IV. of Hohenzollern, burgrave of Nüremburg. Frederick of Austria was taken prisoner, but the struggle was continued by his brother Leopold until the latter's death in 1326. Attempts to enable the two kings to rule Germany jointly failed, and about 1326 Frederick returned to Austria, leaving Louis in undisputed possession of the country. Before this conclusion, however, a new enemy had taken the field. Supported by Philip V. of France in his desire to free Italy entirely from German influence, Pope John XXII. refused to recognize either Frederick or Louis, and asserted his own right to administer the empire during a vacancy. After the battle of Mühldorf Louis sent Berthold of Neifen, count of Marstetten, into Italy with an army, which soon compelled the papal troops to raise the siege at Milan. The pope threatened Louis with excommunication unless he resigned his kingdom within three months. The king thereupon appealed to a general council, and was placed under the papal ban on the 23rd of March 1324, a sentence which he answered by publishing his charges against the pope. In the contest Louis was helped by the Minorites, who were upholding against John the principal of clerical poverty, and by the writings of Marsilius of Padua (who dedicated to Louis his *Defensor pacis*), William of Occam, John of Jandun and others. Taking the offensive, Louis met his Ghibelline supporters at Trent and reached Italy in March 1327; and in May he received the Lombard crown at Milan. Although the pope renewed his fulminations Louis compelled Pisa to surrender, and was hailed with great rejoicing in Rome. On the 17th of January 1328 he was crowned emperor in St Peter's by Sciarra Colonna, a Roman noble; and he answered the continued attacks of Pope John by pronouncing his deposition, and proclaiming Peter of Corvara pope as Nicholas V. He then undertook an expedition against John's ally, Robert, king of Naples, but, disunion among his troops and scarcity of money and provisions, drove him again to Rome, where, finding that his exactions had diminished his popularity, he left the city, and after passing six months at Pisa, returned to Germany in January 1330. The struggle with the pope was renewed in Germany, and when a formidable league had been formed against Louis, his thoughts turned to a reconciliation. He was prepared to assent to very humiliating terms, and even agreed to abdicate; but the negotiations, which were prolonged by further demands on the part of the pope, were interrupted by his death in December 1334. John's successor, Benedict XII., seemed more anxious to come to an arrangement, but was prevented from doing so by the influence of Philip VI. of France. Overtures for peace were made to Philip, but without success; and in July 1337 Louis concluded an alliance with Edward III., king of England, and made active preparations for war. During these years his attention was also occupied by a quarrel with John, king of Bohemia, over the possession of Tirol, by a campaign in Lower Bavaria, and a futile expedition against Nicholas I., bishop of Constance. But although his position was shaken by the indifferent success which attended these campaigns, it was improved when the electors meeting at Rense in July 1338 banded themselves together to defend their elective rights, and when the diet at Frankfort confirmed a decree which declared that the German king did not need the papal approbation to make his election valid.

Louis devoted considerable thought and time to extending the possessions of the Wittelsbach family, to which he belonged.

Tirol had for some time been a subject of contention between the emperor and other princes. The heiress of this county, Margaret Maultasch, had married John Henry, margrave of Moravia, son of King John of Bohemia. Having quarrelled with her husband, Margaret fled to the protection of Louis, who seized the opportunity to declare her marriage void and to unite her in 1342 with his son Louis. The emperor also increased his possessions by his own marriage. In 1322 his first wife, Beatrice, daughter of Henry III., count of Glogau, had died after thirteen years of married life, and Louis then married Margaret, daughter of William III., count of Holland. When her brother, count William IV., died childless in 1345, the emperor obtained possession of Holland, Zealand and Friesland. In 1341 he recovered a portion of the Palatinate, and soon deserted Edward of England and came to terms with Philip of France. The acquisition of the territories, and especially of Tirol, had provided Louis with many enemies, prominent among whom were John of Bohemia and his family, that of Luxemburg. John, therefore, entered into an alliance with Pope Clement VI. The course of the war which ensued in Germany was such as to compel the emperor to submit to humiliating terms, though he stopped short of accepting the election of Charles, margrave of Moravia (afterwards the emperor Charles IV.) as German king in July 1346. Charles consequently attacked Tirol; but Louis, who appeared to have considerable chances of success, died suddenly at a bear-hunt near Munich on the 11th of October 1347. He was buried in the Frauenkirche at Munich, where a statue was erected to his memory in 1622 by Maximilian I., elector of Bavaria, and where a second was unveiled in 1905. He had seven sons, three of whom were subsequently electors of Brandenburg, and ten daughters.

Various estimates have been formed of the character of Louis. As a soldier he possessed skill as well as bravery, but he lacked perseverance and decision in his political relations. At one time haughtily defying the pope, at another abjectly craving his pardon, he seems a very inglorious figure; and the fact that he remained almost undisturbed in the possession of Germany in spite of the utmost efforts of the popes, is due rather to the political and intellectual tendencies of the time than to his own good qualities. Nevertheless he ruled Bavaria with considerable success. He befriended the towns, encouraged trade and commerce and gave a new system of laws to the duchy. German took the place of Latin in the imperial charters, and although not a scholar, the emperor was a patron of learning. Louis was a man of graceful appearance, with ruddy countenance and prominent nose.

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(A. W. H.*)

LOUIS (804-876) surnamed the "German," king of the East Franks, was the third son of the emperor Louis I. and his wife Irmengarde. His early years were partly spent at the court of his grandfather Charlemagne, whose special affection he is said to have won. When the emperor Louis divided his dominions between his sons in 817, Louis received Bavaria and the neighbouring lands, but did not undertake the government until 825, when he became involved in war with the Slavonic tribes on his eastern frontier. In 827 he married Emma, daughter of Welf I., count of Bavaria, and sister of his stepmother Judith; and he soon began to interfere in the quarrels arising from Judith's efforts to secure a kingdom for her own son Charles, and the consequent struggles of Louis and his brothers with the emperor Louis I. (*q.v.*). When the elder Louis died in 840 and his eldest son Lothair claimed the whole Empire, Louis in alliance with his half-brother, king Charles the Bald, defeated Lothair at Fontenoy on the 25th of June 841. In June 842 the three brothers met on an island in the Sâone to negotiate a peace, and each appointed forty representatives to arrange the boundaries of their respective kingdoms. This developed into the treaty of Verdun concluded in August 843, by which Louis received the bulk of the lands of the Carolingian empire lying east of the Rhine, together with a district around Spires, Worms and Mainz, on the left bank of the river. His territories included Bavaria, where he made Regensburg the centre of his government, Thuringia, Franconia and Saxony. He may truly be called the founder of the German kingdom, though his attempts to maintain the unity of the Empire proved futile. Having in 842 crushed a rising in Saxony, he compelled the Abotrites to own his authority, and undertook campaigns against the Bohemians, the Moravians and other tribes, but was not very successful in freeing his shores from the ravages of Danish pirates. At his instance synods and assemblies were held where laws were decreed for the better government of church and state. In 853 and the following years Louis made more than one attempt to secure the throne of Aquitaine, which the people of that country offered him in their disgust with the cruel misrule of Charles the Bald. But though he met with sufficient success to encourage him to issue a charter in 858, dated "the first year of the reign in West Francia," treachery and desertion in his army, and the loyalty to Charles of the Aquitanian bishops brought about the failure of the enterprise, which Louis renounced by a treaty signed at Coblenz on the 7th of June 860.

In 855 the emperor Lothair died, and was succeeded in Italy by his eldest son Louis II., and in the northern part of his kingdom by his second son, Lothair. The comparative weakness of these kingdoms, together with the disorder caused by the matrimonial troubles of Lothair, afforded a suitable opening for the intrigues of Louis and Charles the Bald, whose interest was increased by the fact that both their nephews were without male issue. Louis supported Lothair in his efforts to divorce his wife Teutberga, for which he received a promise of Alsace, while Charles opposed the divorce. But in 865 Louis and Charles meeting near Toul, renewed the peace of Coblenz, and doubtless discussed the possibility of dividing Lothair's kingdom. In 868 at Metz they agreed definitely to a partition; but when Lothair died in 869, Louis was lying seriously ill, and his armies were engaged with the Moravians. Charles the Bald accordingly seized the whole kingdom; but Louis, having recovered, compelled him by a threat of war to agree to the treaty of Mersen, which divided it between the claimants. The later years of Louis were troubled by risings on the part of his sons, the eldest of whom, Carloman, revolted in 861 and again two years later; an example that was followed by the second son Louis, who in a further rising was joined by his brother

Charles. A report that the emperor Louis II. was dead led to peace between father and sons. The emperor, however, was not dead, but a prisoner; and as he was not only the nephew, but also the son-in-law of Louis, that monarch hoped to secure both the imperial dignity and the Italian kingdom for his son Carloman. Meeting his daughter Engelberga, the wife of Louis II., at Trent in 872, Louis made an alliance with her against Charles the Bald, and in 874 visited Italy doubtless on the same errand. The emperor, having named Carloman as his successor, died in August 875, but Charles the Bald reached Italy before his rival, and by persuading Carloman, when he did cross the Alps, to return, secured the imperial crown. Louis was preparing for war when he died on the 28th of September 876 at Frankfort, and was buried at Lorsch, leaving three sons and three daughters. Louis was in war and peace alike, the most competent of the descendants of Charlemagne. He obtained for his kingdom a certain degree of security in face of the attacks of Normans, Hungarians, Moravians and others. He lived in close alliance with the Church, to which he was very generous, and entered eagerly into schemes for the conversion of his heathen neighbours.

See *Annales Fuldenses*; *Annales Bertiniani*; Nithard, *Historiarum Libri*, all in the *Monumenta Germaniae historica. Scriptores*, Bände i. and ii. (Hanover and Berlin, 1826 seq.); E. Dümmler, *Geschichte des ostfränkischen Reiches* (Leipzig, 1887-1888); Th. Sickel, *Die Urkunden Ludwigs des Deutschen* (Vienna, 1861-1862); E. Mühlbacher, *Die Regesten des Kaiserreichs unter den Karolingern* (Innsbruck, 1881); and A. Krohn, *Ludwig der Deutsche* (Saarbrücken, 1872).

(A. W. H.*)

LOUIS I., king of Bavaria (1786-1868), son of the then prince, afterwards duke and elector, Max Joseph of Zweibrücken and his wife Princess Augusta of Hesse-Darmstadt (-1796), was born at Strassburg on the 25th of August 1786. He received a careful education at home, afterwards (in 1803) going to the Bavarian national university of Landshut and to Göttingen. As a young man he was drawn into the Romantic movement then at its height; but both the classics and contemporary classical poetry took hold upon his receptive mind (he visited Goethe in 1827). He had himself strong artistic tendencies, though his numerous poems show but little proof of this, and as a patron of the arts he proved himself as great as any who had ever occupied a German, throne, and more than a mere dilettante. His first visit to Italy, in 1804, had an important influence upon this side of his development.

But even in Italy the crown prince (his father had become elector in 1799 and king of Bavaria in 1805) did not forget his nationality. He soon made himself leader of the small anti-French party in Bavaria. Napoleon sought in vain to win him over, and Louis fell more and more out of favour with him. Napoleon was even reported to have said: “Qui m’empêche de laisser fusiller ce prince?” Their relations continued to be strained, although in the campaigns of 1807 and 1809, in which Bavaria was among the allies of France, Louis won his laurels in the field.

The crown prince was also averse from a Napoleonic marriage, and preferred to marry (October 12, 1810) the Princess Therese of Saxe-Hildburghausen (1792-1854). Three daughters and four sons were born of this marriage, one of whom succeeded him as Maximilian II., while another, Luitpold, became prince regent of Bavaria on the death of Louis II.

During the time that he was crown prince Louis resided chiefly at Innsbruck or Salzburg as governor of the circle of the Inn and Salzach. In 1815 he attended the Congress of Vienna, where he was especially occupied in endeavouring to obtain the restoration of Alsace and Lorraine to Germany; and later in the year he was with the allies in Paris, using his influence to secure the return of the art treasures carried off by the French.

After 1815 also the crown prince maintained his anti-French attitude, and it was mainly his influence that in 1817 secured the fall of Montgelas, the minister with French sympathies. Opposed to absolutism, Louis took great interest in the work of organizing the Bavarian constitution (1818) and defended it against Metternich and the Carlsbad Decrees (1819); he was also one of the most zealous of the ardent Philhellenes in Germany at the time. He succeeded to the crown of Bavaria on the 12th of October 1825, and at once embarked upon a moderate constitutional policy, in which he found himself in general agreement with the parliament. Although he displayed a loyal attachment to the Catholic Church, especially owing to his artistic sympathies, he none the less opposed all its more exaggerated pretensions, especially as represented by the Jesuits, whom he condemned as un-German. In the year of his accession he abolished an old edict concerning the censorship. He also furthered in many ways the internal administration of the state, and especially that of the finances. His personal tastes, apart from his activities as a Maecenas, being economical, he endeavoured also to limit public expenditure, in a way which was not always a benefit to the country. Bavaria’s power of self-defence especially was weakened by his economies and by his lack of interest in the military aspect of things.

He was a warm friend of learning, and in 1826 transferred the university of Landshut to Munich, where he placed it under his special protection. Prominent scholars were summoned to it, mostly belonging to the Romantic School, such as Goerres, Schubert and Schelling, though others were not discouraged. In the course of his visits to Italy he formed friendships with famous artists such as Thorwaldsen and Cornelius. He was especially anxious to obtain works of art, mainly sculpture, for the famous Munich collections which he started, and in this he had the advantage of the assistance of the painter Martin Wagner. He also set on foot movements for excavation and the collection of works of art in Greece, with excellent results.

Under the influence of the July revolution of 1830, however, he also began to be drawn into the current of reaction; and though he still declared himself openly against absolutism, and never took up such a hostile attitude towards constitutional ideas as his brother-in-law King Frederick William IV., he allowed the reactionary system of surveillance which commended itself to the German Confederation after 1830 to be introduced into Bavaria (see Bavaria: *History*). He continued, on the other hand, to do much for the economic development of the country. As a follower of the ideas of Friedrich List, he furthered the foundation of the Zollverein in the year 1833 and the making of canals. Railways he looked upon as a “necessary evil.”

In external politics peace was maintained on the whole after 1825. Temporary diplomatic complications arose between Bavaria and Baden in connexion with Louis’s favourite project of winning back the part then belonging to Baden of the old Palatinate, the land of his birth, which was always very dear to him.

Of European importance was his enthusiasm for the liberation of Greece from the rule of Turkey. Not only did he erect the *Propyläen* at Munich in her honour, but he also helped her in the most generous way both with money and diplomatic resources. And after his second son Otto had become king of Greece in 1832, Greek affairs became from time to time the central point of his foreign policy. In 1835 he made a visit to Greece, partly political, partly inspired by his old interest in art. But his son proved unequal to his task, and in 1862 was forced to abdicate (see Otho, king of Greece). For this unfortunate issue Louis was not without blame; for from the very first, owing to an exaggerated idealism and love of antiquity, he had totally misunderstood the national character of the Greeks and the problems involved in the attempts to govern them by bureaucratic methods.

In Bavaria, too, his government became more and more conservative, especially after Karl Abel became the head of the ministry in 1837. The king had not yet, it is true, altogether committed himself to the clerical ultras, and on the occasion of the dispute about the bishops in Prussia in the same year had taken up a wise attitude of compromise. But in Bavaria itself the strict Catholic party influenced affairs more and more decisively. For a while, indeed, this opposition did not impair the

king's popularity, due to his amiable character, his extraordinary services in beautifying his capital of Munich, and to his benevolence (it has been reckoned that he personally received about 10,000 letters asking for help every year, and that the money he devoted to charity amounted to about a fifth of his income). The year 1846, however, brought a change which had sad consequences. This was due to the king's relations with the Spanish dancer Lola Montez, who appeared in Munich in October 1846, and soon succeeded by her beauty and wit in fascinating the king, who was always susceptible to feminine charms. The political importance of this lay in the fact that the royal mistress began to use her great influence against the clerical policy of the Abel ministry. So when the king was preparing the way for ennobling her, in order to introduce her into court circles, which were unwilling to receive her, the ministry protested in the famous memorandum of the 11th of February 1847 against the king's demand for her naturalization as a Bavarian, the necessary preliminary to her ennoblement. The position was still further embittered by the fact that, owing to an indiscretion, the memorandum became known to the public. Thereupon the king, irritated and outraged, replaced Abel's Clerical ministry by a more accommodating Liberal one under Zu Rhein under which Lola Montez without more difficulty became Countess Landsberg. Meanwhile, the criticism and opposition of the people, and especially of the students, was turned against the new leader of the court of Munich. On top of this came the revolutionary movement of 1848. The king's position became more and more difficult, and under the pressure of popular opposition he was forced to banish the countess. But neither this nor the king's liberal proclamation of the 6th of March succeeded in establishing peace, and in the capital especially the situation became increasingly threatening. All this made such a deep impression on the king, that on the 20th of March 1848 he abdicated in favour of his son Maximilian.

He now retired entirely into private life, and continued to play the Maecenas magnificently, frequently staying at his villa in Rome, the Villa Malta, and enjoying extraordinary vigour of mind and body up to the end of his days. His popularity, which had been shaken by the Montez affair, he soon recovered, especially among artists. To him Munich owes her finest art collections and most remarkable buildings. The monarch's artistic sense led him not only to adorn his house with a number of works of antique art, but also to study German medieval art, which he did to good effect. To him Munich owes the acquisition of the famous Rhenish collection of the Boisserée brothers. The king also worked with great zeal for the care of monuments, and the cathedrals of Spires and Cologne enjoyed his special care. He was also an unfailing supporter of contemporary painting, in so far as it responded to his romantic tendencies, and he gave a fresh impulse to the arts of working in metal and glass. As visible signs of his permanent services to art Munich possesses the Walhalla, the Glyptothek, the two Pinakotheken, the Odeon, the University, and many other magnificent buildings both sacred and profane. The rôle which the Bavarian capital now plays as the leading art centre of Germany would have been an impossibility without the splendid munificence of Louis I.

He died on the 28th of February 1868 at Nice, and on the 9th of March was buried in Munich, amid demonstrations of great popular feeling.

The chief part of Louis's records is contained in seven sealed chests in the archives of his family, and by the provisions of his will these were not to be opened till the year 1918. These records contain an extraordinarily large and valuable mass of historical material, including, as one item, 246 volumes of the king's diary.

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(J. HN.)

LOUIS II., king of Bavaria (1845-1886), son of his predecessor Maximilian II. and his wife Maria, daughter of Prince William of Prussia, was born at Nymphenburg on the 25th of August 1845. Together with his brother Otto, three years younger than himself, Louis received, in accordance with the wishes of his learned father, a simple and serious education modelled on that of the German *Gymnasien*, of which the classical languages are the chief feature. Of modern languages the crown prince learnt only French, of which he remained fond all his life. The practical value of the prince's training was small. It was not till he was eighteen years old that he received his first pocket-money, and at that age he had no ideas about money and its value. Military instruction, physical exercises and sport, in spite of the crown prince's strong physique, received little attention. Thus Louis did not come enough into contact with young men of his own age, and consequently soon developed a taste for solitude, which was found at an early age to be combined with the romantic tendencies and musical and theatrical tastes traditional in his family.

Louis succeeded to the throne on the 10th of March 1864, at the age of eighteen. The early years of his reign were marked by a series of most serious political defeats for Bavaria. In the Schleswig-Holstein question, though he was opposed to Prussia and a friend of Duke Frederick VIII. of Augustenburg, he did not command the material forces necessary effectively to resist the powerful policy of Bismarck. Again, in the war of 1866, Louis and his minister von der Pfordten took the side of Austria, and at the conclusion of peace (August 22) Bavaria had, in addition to the surrender of certain small portions of her territory, to agree to the foundation of the North German Confederation under the leadership of Prussia. The king's Bavarian patriotism, one of the few steadfast ideas underlying his policy, was deeply wounded by these occurrences, but he was face to face with the inevitable, and on the 10th of August wrote a letter of reconciliation to King William of Prussia. The defeat of Bavaria in 1866 showed clearly the necessity for a reform of the army. Under the new Liberal ministry of Hohenlohe (December 29, 1866—February 13, 1870) and under Prauckh as minister of war, a series of reforms were carried through which prepared for the victories of 1870. As regards his ecclesiastical policy, though Louis remained personally true to the Catholic Church, he strove for a greater independence of the Vatican. He maintained friendly relations with Ignaz von Döllinger, the leader of the more liberal Catholics who opposed the definition of papal infallibility, but without extending his protection to the anti-Roman movement of the Old Catholics. In spite of this the Old Bavarian opposition was so aroused by the Liberalism of the Hohenlohe ministry that at the beginning of 1870 Louis had to form a more Conservative cabinet under Count Bray-Steinburg. On the outbreak of the Franco-Prussian War he at once took the side of Prussia, and gave orders for mobilization. In 1871 it was he who offered the imperial crown to the king of Prussia; but this was not done on his own initiative. Bismarck not only determined the king of Bavaria to take the decisive step which put an end to a serious diplomatic crisis, but actually drafted the letter to King William which Louis copied and despatched without changing a word. Louis placed very few difficulties in the way of the new German Empire under the leadership of Prussia, though his Bavarian

particularism remained unchanged.

Though up till the beginning of the year 1880 he did not cease to give some attention to state affairs, the king's interests lay in quite other spheres. His personal idiosyncrasies had, in fact, developed meanwhile in a most unhappy direction. His enthusiasm for all that is beautiful soon led him into dangerous bypaths. It found its most innocent expression in the earliest years of his reign when he formed an intimate friendship with Richard Wagner, whom from May 1864 to December 1865 he had constantly in his company. Louis was entirely possessed by the soaring ideas of the master, and was energetic in their realization. He not only established Wagner's material position at the moment by paying 18,000 gulden of debts for him and granting him a yearly income of 4000 gulden (afterwards increased to 8000), but he also proceeded to realize the ambitious artistic plans of the master. A series of brilliant model performances of the Wagnerian music-dramas was instituted in Munich under the personal patronage of the king, and when the further plan of erecting a great festival theatre in Munich for the performance of Wagner's "music of the future" broke down in the face of the passive resistance of the local circles interested, the royal enthusiast conceived the idea of building at Bayreuth, according to Wagner's new principles, a theatre worthy of the music-dramas. For a time Louis was entirely under Wagner's influence, the fantastic tendencies of whose art cast a spell over him, and there is extant a series of emotional letters of the king to Wagner. Wagner, on the whole, used his influence in artistic and not in political affairs.[1] In spite of this the opposition to him became permanent. Public opinion in Bavaria for the most part turned against him. He was attacked for his foreign origin, his extravagance, his intrigues, his artistic utopias, and last but by no means least, for his unwholesome influence over the king. Louis in the end was compelled to give him up. But the relations between king and artist were by no means at an end. In face of the war which was imminent in 1866, and in the midst of the preparation for war, the king hastened in May to Triebschen, near Lucerne, in order to see Wagner again.[2] In 1868 they were seen together in public for the last time at the festival performances in Munich. In 1876 Wagner's *Ring des Nibelungen* was performed for the first time at Bayreuth in the presence of the king. Later, in 1881, the king formed a similar friendship with Joseph Kainz the actor, but it soon came to an end. In January 1867 the young king became betrothed to Duchess Sophie of Bavaria (afterwards Duchesse d'Alençon), daughter of Duke Max and sister of the empress of Austria; but the betrothal was dissolved in October of the same year.

Though even in his later years he remained interested in lofty and intellectual pursuits, as may be gathered, apart from his enthusiasm for art and nature, from his wide reading in history, serious poetry and philosophy, yet in his private life there became increasingly marked the signs of moral and mental weakness which gradually gained the mastery over his once pure and noble nature. A prominent feature was his blind craving for solitude. He cut himself off from society, and avoided all intercourse with his family, even with his devotedly affectionate mother. With his ministers he came to communicate in writing only. At the end he was surrounded only by inferior favourites and servants. His life was now spent almost entirely in his castles far from the capital, which irked him more and more, or in short and hasty journeys, in which he always travelled incognito. Even the theatre he could now only enjoy alone. He arranged private performances in his castles or in Munich at fabulous cost, and appointed an official poet to his household. Later his avoidance of society developed into a dread of it, accompanied by a fear of assassination and delusions that he was being followed.

Side by side with this pathological development his inborn self-consciousness increased apace, turning more and more to megalomania, and impelling the weak-willed monarch to those extraordinary displays of magnificence which can still be admired to-day in the castles built or altered by him, such as Berg on the Starnberger See, Linderhof, Herrenchiemsee, Hohenschwangau, Neuschwanstein, &c., which are among the most splendid buildings in Germany. It is characteristic of the extravagance of the king's ideas that he adopted as his model the style of Louis XIV. and fell into the habit of imitating the *Roi Soleil*. He no longer stayed for any length of time in one castle. Often he scoured the country in wild nocturnal rides, and madness gained upon him apace. His mania for buying things and making presents was comparatively harmless, but more serious matters were the wild extravagance which in 1880 involved him in financial ruin, his fits of destructive rage, and the tendency to the most cruel forms of abnormal vice. None the less, at the time when the king's mental weakness was increasing, his character still retained lovable traits—his simple sense of beauty, his kindliness, and his highly developed understanding of art and artistic crafts. Louis's love of beauty also brought material profit to Bavaria.

But the financial and political dangers which arose from the king's way of life were so great that interference became necessary. On the 8th of June 1886 medical opinion declared him to be affected with chronic and incurable madness and he was pronounced incapable of governing. On the 10th of June his uncle, Prince Luitpold, assumed the regency, and after violent resistance the late king was placed under the charge of a mental specialist. On the 13th of June 1886 he met with his death by drowning in the Starnberger See, together with his doctor von Gudden, who had unwisely gone for a walk alone with his patient, whose physical strength was enormous. The details of his death will never be fully known, as the only possible eye-witness died with him. An examination of the brain revealed a condition of incurable insanity, and the faculty submitted a report giving the terrible details of his malady. Louis's brother Otto, who succeeded him as king of Bavaria, was also incurably insane.

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(J. Hn.)

1 It was on Wagner's advice that the king appointed Hohenlohe prime minister in 1866. See Hohenlohe-Schillingfurst, Prince Chlodwig zu, under Hohenlohe. [Ed.]

2 Hohenlohe (*Denkwürdigkeiten*) comments on the fact that the king did not even take the trouble to review the troops proceeding to the war. [Ed.]

LOUIS II.[1] (846-879), king of France, called "le Bègue" or "the Stammerer," was a son of Charles II. the Bald, Roman emperor and king of the West Franks, and was born on the 1st of November 846. After the death of his elder brother Charles in 866 he became king of Aquitaine, and in October 877 he succeeded his father as king of the West Franks, but not as emperor. Having made extensive concessions to the nobles both clerical and lay, he was crowned king by Hincmar, archbishop of Reims, on the 8th of December following, and in September 878 he took advantage of the presence of Pope John VIII. at the council of Troyes to be consecrated afresh. After a feeble and ineffectual reign of eighteen months Louis died

at Compiègne on the 10th or 11th of April 879. The king is described as “un homme simple et doux, aimant la paix, la justice et la religion.” By his first wife, Ansgarde, a Burgundian princess, he had two sons, his successors, Louis III. and Carloman; by his second wife, Adelaide, he had a posthumous son, Charles the Simple, who also became king of France.

(A. W. H.*)

1 The emperor Louis I. is counted as Louis I., king of France.

LOUIS III. (*c.* 863-882), king of France, was a son of Louis II. and with his brother Carloman succeeded his father as king in April 879. A strong party, however, cast some doubts upon the legitimacy of the young princes, as the marriage of their parents had not been recognized by the emperor Charles the Bald; consequently it was proposed to offer the crown to the East Frankish ruler Louis, a son of Louis the German. But this plan came to nothing, and in September 879 the brothers were crowned at Ferrières by Ansègisus, archbishop of Sens. A few months later they divided their kingdom, Louis receiving the part of France north of the Loire. They acted together against the Northmen, over whom in August 881 they gained a memorable victory. They also turned against Boso who had been set up as king in Burgundy and Provence. On the 5th of August 882 Louis died at St Denis. He left no sons and Carloman became sole king.

(A. W. H.*)

LOUIS IV. (921-954), king of France, surnamed “d’Outremer” (*Transmarinus*), was the son of Charles III. the Simple. In consequence of the imprisonment of his father in 922, his mother Odgiva (Eadgyfu), sister of the English king Æthelstan, fled to England with the young Louis—a circumstance to which he owes his surname. On the death of the usurper Rudolph (Raoul), Ralph of Burgundy, Hugh the Great, count of Paris, and the other nobles between whom France was divided, chose Louis for their king, and the lad was brought over from England and consecrated at Laon on the 19th of June 936. Although his *de facto* sovereignty was confined to the town of Laon and to some places in the north of France, Louis displayed a zeal beyond his years in procuring the recognition of his authority by his turbulent vassals. The beginning of his reign was marked by a disastrous irruption of the Hungarians into Burgundy and Aquitaine (937). In 939 Louis became involved in a struggle with the emperor Otto the Great on the question of Lorraine, the nobles of which district had sworn an oath of fidelity to the king of France. When Louis married Gerberga, sister of Otto, and widow of Giselbert, duke of Lorraine, there seemed to be a fair prospect of peace; but the war was resumed, Otto supporting the rebel lords of the kingdom of France, and peace was not declared until 942, at the treaty of Visé-sur-Meuse. On the death of William Longsword, duke of Normandy, who had been assassinated by Arnulf, count of Flanders, in December 942, Louis endeavoured to obtain possession of the person of Richard, the young son and heir of the late duke. After an unsuccessful expedition into Normandy, Louis fell into the hands of his adversaries, and was for some time kept prisoner at Rouen (945), and subsequently handed over to Hugh the Great, who only consented to release him on condition that he should surrender Laon. Menaced, however, by Louis’ brother-in-law, Otto the Great, and excommunicated by the council of Ingelheim (948), the powerful vassal was forced to make submission and to restore Laon to his sovereign. The last years of the reign were troubled by fresh difficulties with Hugh the Great and also by an irruption of the Hungarians into the south of France. Louis died on the 10th of September 954, and was succeeded by his son Lothair.

The chief authority for the reign is the chronicler Flodoard. See also Ph. Lauer, *La Règne de Louis IV d’Outre-Mer* (Paris, 1900); and A. Heil, *Die politischen Beziehungen zwischen Otto dem Grossen und Ludwig IV. von Frankreich* (Berlin, 1904).

(R. Po.)

LOUIS V. (967-987), king of France, succeeded his father Lothair in March 986 at the age of nineteen, and finally embroiled the Carolingian dynasty with Hugh Capet and Adalberon, archbishop of Reims. From the absence of any important event in his one year’s reign the medieval chroniclers designated him by the words “qui nihil fecit,” *i.e.* “le Fainéant” or “do-nothing.” Louis died in May 987, his mother Emma being accused of having poisoned him. He had married Adelaide, sister of Geoffrey Grisegonelle, count of Anjou, but had no issue. His heir by blood was Charles, duke of Lower Lorraine, son of Louis IV., but the defection of the bishops and the treason of Adalberon (Ascelinus), bishop of Laon, assured the success of Hugh Capet.

See F. Lot, *Les Derniers Carolingiens* (Paris, 1891); and the *Recueil des actes de Lothaire et de Louis V*, edited by L. Halphen and F. Lot (1908).

(R. Po.)

LOUIS VI. (1081-1137), king of France, surnamed “the Fat,” was the son of Philip I. of France and Bertha of Holland. He was also surnamed the “Wide-awake” and “the Bruiser,” and lost none of his energy when he earned the nickname by which he is known in history. In 1098 Louis was made a knight, and about the same time was associated with his father in the government, which the growing infirmities of Philip left more and more to his son, in spite of the opposition of Bertrada, the queen, whose criminal union with Philip had brought the anathema of the church. From 1100 to 1108 Louis by his victorious wars on the English and brigands had secured the army on his side, while the court supported Bertrada. Unable to make headway against him in war she attempted to poison him, and contemporary chroniclers attributed to this poison the pallor of his face, which seems to have been in remarkable contrast to his stalwart, and later his corpulent figure. Louis’ reign is one of the most important in the history of France. He is little less than the second founder of the Capetian dynasty. When the feeble and incompetent Philip I. died (29th of July 1108) Louis was faced by feudal barons as powerful as himself, and ready to rise

against him. He was forced to have himself hurriedly crowned at Orleans, supported by a handful of vassals and some ecclesiastics. As king he continued the policy he had followed during the previous eight years, of securing the roads leading to Paris by putting down feudal brigands and destroying their strongholds in the Île-de-France. The castle of the most notorious of these, Hugues du Puiset, was three times taken and burned by the king's men, but Hugues was spared to go back each time to his robber life, until he died on a crusade. In the north, Thomas de Marle, son of Enguerrand de Coucy, carried on a career of rapine and murder for almost thirty years before the king succeeded in taking him prisoner (1130). Twenty-four years of continuous war finally rooted out the robber barons who lived on the plunder of the roads leading to Paris: the lords of Montlhéri, who commanded the roads to Orleans, Melun and the south, those of Montmorency near St Denis on the north (who had to restore what they had robbed the abbey of St Denis), those of Le Puiset toward the west, on the way to Chartres, and many others. Parallel with this consolidation of his power in the ancestral domains Louis met energetically the Anglo-Norman danger, warring with Henry I. of England for twenty-five years. After the victory of Tinchebray (1106) Louis supported the claims of William Clito, son of Robert, duke of Normandy, against Henry I. A ruthless war followed, in which Louis was at times reduced to the sorest straits. In 1119, at a council held at Reims under the presidency of Pope Calixtus II., the enemies were reconciled; but William Clito's claims were not satisfied, and in 1123 war began again on a larger scale. Henry I. induced the emperor Henry V. to join in the attack upon France; and, his heir having been drowned in the loss of the "White Ship," won the count of Anjou by marrying his only daughter Matilda to Geoffrey, the Angevin heir (1127). The invasion of Henry V. was met by something like a national army, which gathered under Louis at Reims. "For a few days at least, the lord of the Île-de-France was truly a king of France" (Luchaire). Suger proudly gives the list of barons who appeared. Henry V. came no farther than Metz. Royalty had won great prestige. Even Theobald, count of Chartres, the king's greatest enemy, the soul of feudal coalitions, came with his contingent. Shortly afterwards (1126), Louis was able to overawe the great count of Aquitaine, William IX., and force his vassal, the count of Auvergne, to treat justly the bishop of Clermont. In Flanders Louis interfered upon the assassination of Charles the Good. He caused the barons to elect as their count in Arras the same William Clito who claimed Normandy, and who was closely bound to the king. For a while Louis had Flanders absolutely at his disposal, but he had hardly left William alone (1127) when his brutal oppression roused both towns and nobles, who declared that Louis had no right to interfere in Flanders. The death of William Clito, and a savage war with his own seneschal, prevented Louis from effectually resenting this attitude; but Thierry of Alsace, the new count, consented in 1128 to receive from Louis the investiture of all his French fiefs, and henceforth lived on good terms with him. In all his wars —those mentioned are but a part of them—Louis fought in person. Proud of his strength, reckless in the charge as on the march, plunging into swollen rivers, entering blazing castles, he gained the reputation of a national hero, the protector of the poor, the church, the peasants and the towns. The communal movement grew during his reign, and he encouraged it on the fiefs of his vassals in order to weaken them; but the title "Father of the Communes" by which he was known in history is not deserved, though he did grant some privileges to towns on his domains. Neither was Louis the author of the movement for the emancipation of the serfs, as was formerly claimed. His attitude toward the movement was like that of his predecessors and contemporaries, to favour emancipation when it promised greater chance of profit, greater scope for exploitation of the peasants; otherwise to oppose it. He was a great benefactor to the church, aided the new, reformed monastic congregations of Cîteau, Prémontré and Fontevrault, and chose his two chief ministers from the clergy. Étienne de Garlande, whom Louis raised from obscurity to be archdeacon of Notre Dame at Paris, chancellor and seneschal of France, was all-powerful with the king from 1108 to 1127. His relatives monopolized the highest offices of the state. But the queen Adelaide became his enemy; both Ivo of Chartres and St Bernard bitterly attacked him; and the king suddenly stripped him of all his offices and honours. Joining the rebellious barons, Étienne then led a bitter war against the king for three years. When Louis had reduced him to terms he pardoned him and restored him to the chancellorship (1132), but not to his old power. Suger (*q.v.*), administrator of St Denis, enters the scene toward the close of this reign, but his great work belongs to the next. Louis VI. died on the 1st of August 1137, just a few days after his son, Louis the Young, had set out for the far south-west, the Aquitaine which had been won by the marriage with Eleanor. His wife was Adelaide, or Alice, daughter of Humbert II., count of Savoy, by whom he had seven sons and a daughter.

See A. Luchaire, *Louis le Gros, annales de sa vie et son règne* (1890), and the same writer's volume, *Les Premiers Capétiens*, in E. Lavisse's *Histoire de France.*

(J. T. S.*)

LOUIS VII. (*c.* 1121-1180), king of France, son of Louis VI. the Fat, was associated with his father and anointed by Innocent II. in 1131. In 1137 he succeeded his father, and in the same year married at Bordeaux Eleanor, heiress of William II., duke of Aquitaine. In the first part of his reign he was vigorous and jealous of his prerogatives, but after his crusade his religiosity developed to such an extent as to make him utterly inefficient. His accession was marked by no disturbances, save the risings of the burgesses of Orleans and of Poitiers, who wished to organize communes. But soon he came into violent conflict with Pope Innocent II. The archbishopric of Bourges became vacant, and the king supported as candidate the chancellor Cadurc, against the pope's nominee Pierre de la Châtre, swearing upon relics that so long as he lived Pierre should never enter Bourges. This brought the interdict upon the king's lands. At the same time he became involved in a war with Theobald, count of Champagne, by permitting Rodolphe (Raoul), count of Vermandois and seneschal of France, to repudiate his wife, Theobald's niece, and to marry Petronille of Aquitaine, sister of the queen of France. The war, which lasted two years (1142-44), was marked by the occupation of Champagne by the royal army and the capture of Vitry, where many persons perished in the burning of the church. Geoffrey the Handsome, count of Anjou, by his conquest of Normandy threatened the royal domains, and Louis VII. by a clever manœuvre threw his army on the Norman frontier and gained Gisors, one of the keys of Normandy. At his court which met in Bourges Louis declared on Christmas Day 1145 his intention of going on a crusade. St Bernard assured its popularity by his preaching at Vézelay (Easter 1146), and Louis set out from Metz in June 1147, on the overland route to Syria. The expedition was disastrous, and he regained France in 1149, overcome by the humiliation of the crusade. In the rest of his reign he showed much feebleness and poor judgment. He committed a grave political blunder in causing a council at Beaugency (on the 21st of March 1152) to annul his marriage with Eleanor of Aquitaine, under pretext of kinship, but really owing to violent quarrels during the crusade. Eleanor married Henry II. of England in the following May, and brought him the duchy of Aquitaine. Louis VII. led a half-hearted war against Henry for having married without the authorization of his suzerain; but in August 1154 gave up his rights over Aquitaine, and contented himself with an indemnity. In 1154 Louis married Constance, daughter of the king of Castile, and their daughter Marguerite he affianced imprudently by the treaty of Gisors (1158) to Henry, eldest son of the king of England, promising as dowry the Vexin and Gisors. Five weeks after the death of Constance, on the 4th of October 1160, Louis VII. married Adèle of Champagne, and Henry II. to counterbalance the aid this would give the king of France, had the marriage of their infant children celebrated at once. Louis VII. gave little sign of understanding the danger of the growing Angevin power, though in 1159 he made an expedition in the south to aid Raymond V., count of Toulouse, who had been attacked by Henry II. At the same time the emperor Frederick I. in the east was making good the imperial claims on Arles. When the schism broke out, Louis took the part of the pope Alexander III., the enemy of Frederick, and after two comedy-like failures of Frederick to meet Louis VII. at Saint Jean de Losne (on the 29th of August and the 22nd of September 1162), Louis definitely gave himself up to the cause of Alexander, who lived at Sens from 1163 to 1165. Alexander gave the king, in return for his loyal support, the golden rose. Louis VII. received Thomas Becket and tried to reconcile him with King Henry II. He supported Henry's

rebellious sons, but acted slowly and feebly, and so contributed largely to the break up of the coalition (1173-1174). Finally in 1177 the pope intervened to bring the two kings to terms at Vitry. By his third wife, Adèle, Louis had an heir, the future Philip Augustus, born on the 21st of August 1165. He had him crowned at Reims in 1179, but, already stricken with paralysis, he himself was not able to be present at the ceremony, and died on the 18th of September 1180. His reign from the point of view of royal territory and military power, was a period of retrogression. Yet the royal authority had made progress in the parts of France distant from the royal domains. More direct and more frequent connexion was made with distant feudatories, a result largely due to the alliance of the clergy with the crown. Louis thus reaped the reward for services rendered the church during the least successful portion of his reign.

See R. Hirsch, *Studien zur Geschichte König Ludwigs VII. von Frankreich* (1892); A. Cartellieri, *Philipp II. August von Frankreich bis zum Tode seines Vaters, 1165-1180* (1891); and A. Luchaire in E. Lavisse's *Histoire de France*, tome iii. 1st part, pp. 1-81.

(J. T. S.*)

LOUIS VIII. (1187-1226), king of France, eldest son of Philip Augustus and of Isabella of Hainaut, was born in Paris on the 5th of September 1187. Louis was short, thin, pale-faced, with studious tastes, cold and placid temper, sober and chaste in his life. He left the reputation of a saint, but was also a warrior prince. In 1213 he led the campaign against Ferrand, count of Flanders; in 1214, while Philip Augustus was winning the victory of Bouvines, he held John of England in check, and was victorious at La Roche-aux-Moines. In the autumn of 1215 Louis received from a group of English barons, headed by Geoffrey de Mandeville, a request to "pluck them out of the hand of this tyrant" (John). Some 7000 French knights were sent over to England during the winter and two more contingents followed, but it was only after twenty-four English hostages had arrived in Paris that Louis himself prepared to invade England. The expedition was forbidden by the papal legate, but Louis set out from Calais on the 20th and landed at Stonor on the 22nd of May 1216. In three months he had obtained a strong foothold in eastern England, and in the end of July he laid siege to Dover, while part of his army besieged Windsor with a view to securing the safety of London. The pretexts on which he claimed the English crown were set down in a memorandum drawn up by French lawyers in 1215. These claims—that John had forfeited the crown by the murder of his nephew, Arthur of Brittany, and that the English barons had the right to dispose of the vacant throne—lost their plausibility on the death of King John and the accession of his infant son as Henry III. in October 1216. The papal legate, Gualo, who had forbidden the enterprise, had arrived in England at the same time as Louis. He excommunicated the French troops and the English rebels, and Henry III. found a valiant defender in William Marshal, earl of Pembroke. After the "Fair of Lincoln," in which his army was defeated, Louis was compelled to resign his pretensions, though by a secret article of the treaty of Lambeth (September 1217) he secured a small war indemnity. Louis had assisted Simon de Montfort in his war against the Albigenses in 1215, and after his return to France he again joined the crusade. With Simon's son and successor, Amauri de Montfort, he directed the brutal massacre which followed the capture of Marmande. Philip II., suspicious of his son until the close of his life, took precautions to assure his obedience, narrowly watched his administration in Artois, which Louis held from his mother Isabella, and, contrary to the custom of the kings of France, did not associate his son with him by having him crowned. Philip Augustus dying on the 14th of July 1223, Louis VIII. was anointed at Reims on the 6th of August following. He surrounded himself with councillors whom his father had chosen and formed, and continued his father's policy. His reign was taken up with two great designs: to destroy the power of the Plantagenets, and to conquer the heretical south of France. An expedition conquered Poitou and Saintonge (1224); in 1226 he led the crusade against the Albigenses in the south, forced Avignon to capitulate and received the submission of Languedoc. While passing the Auvergne on his return to Paris, he was stricken with dysentery, and died at Montpensier on the 8th of November 1226. His reign, short as it was, brought gains both to the royal domains and to the power of the crown over the feudal lords. He had married in 1200 Blanche of Castile, daughter of Alphonso IX. of Castile and granddaughter of Henry II. of England, who bore him twelve children; his eldest surviving son was his successor, Louis IX.

See C. Petit-Dutaillis, *Étude sur la vie et le règne de Louis VIII.* (Paris, 1894); and E. Lavisse, *Histoire de France*, tome iii. (1901).

(M. Br.)

LOUIS IX. (1214-1270), king of France, known as Saint Louis, was born on the 25th of April 1214, and was baptized at Poissy. His father, Louis VIII., died in 1226, leaving the first minority since the accession of the Capetians, but his mother, Queen Blanche of Castile, proved more than a match for the feudal nobility. She secured her son's coronation at Reims on the 29th of November 1226; and, mainly by the aid of the papal legate, Romano Bonaventura, bishop of Porto (d. 1243), and of Thibaut IV., count of Champagne, was able to thwart the rebellious plans of Pierre Mauclerc, duke of Brittany, and Philippe Hurepel, a natural son of Philip Augustus. Mauclerc's opposition was not finally overcome, however, until 1234. Then in 1236 Thibaut, who had become king of Navarre, turned against the queen, formed an alliance with Brittany, marrying his daughter without royal consent to Jean le Roux, Mauclerc's son, and attempted to make a new feudal league. The final triumph of the regent was shown when the king's army assembled at Vincennes. His summons met with such general and prompt obedience as to awe Thibaut into submission without striking a blow. Thus the reign of Louis IX. began with royal prerogatives fully maintained; the kingdom was well under control, and Mauclerc and Thibaut were both obliged to go on crusade. But the influence of the strong-willed queen-mother continued to make itself felt to the close of her life. Louis IX. did not lack independence of character, but his confidence in his mother had been amply justified and he always acted in her presence like a child. This confidence he withheld from his wife, Margaret, daughter of Raymond Berenger, count of Provence, whom he married at Sens in May 1234. The reign was comparatively uneventful. A rising of the nobles of the south-west, stirred up by Isabella, widow of King John of England, and her husband, Hugh de Lusignan, count of the Marche, upon the occasion of the investment of Alphonse of Poitiers with the fiefs left him by Louis VIII. as a result of the Albigensian crusade, reached threatening dimensions in 1242, but the king's armies easily overran Count Hugh's territories, and defeated Henry III. of England, who had come to his aid, at Saintes. Isabella and her husband were forced to submit, and Raymond VII., count of Toulouse, yielded without resistance upon the advent of two royal armies, and accepted the peace of Lorris in January 1243. This was the last rising of the nobles in Louis's reign.

At the end of 1244, during an illness, Louis took the cross. He had already been much distressed by the plight of John of Brienne, emperor at Constantinople, and bought from him the crown of thorns, parts of the true cross, the holy lance, and the holy sponge. The Sainte Chapelle in Paris still stands as a monument to the value of these relics to the saintly king. But the quarrel between the papacy and the emperor Frederick II., in which Louis maintained a watchful neutrality—only interfering to prevent the capture of Innocent IV. at Lyons—and the difficulties of preparation, delayed the embarkation until August

1248. His defeat and capture at Mansura, in February 1250, the next four years spent in Syria in captivity, in diplomatic intrigues, and finally in raising the fortifications of Caesarea and Joppa,—these events belong to the history of the crusades (*q.v.*). His return to France was urgently needed, as Blanche of Castile, whom he had left as regent, had died in November 1252, and upon the removal of her strong hand feudal turbulence had begun to show itself.

This period between his first and second crusades (1254-1269) is the real age of Saint Louis in the history of France. He imposed peace between warring factions of his nobility by mere moral force, backed up by something like an awakened public opinion. His nobles often chafed under his unrelenting justice but never dared rebel. The most famous of his settlements was the treaty of Paris, drawn up in May 1258 and ratified in December 1259, by which the claims of Henry III. of England were adjusted. Henry renounced absolutely Normandy, Anjou, Touraine, Maine and Poitou, and received, on condition of recognizing Louis as liege suzerain, all the fiefs and domains of the king of France in the dioceses of Limoges, Cahors and Perigueux, and the expectation of Saintonge south of the Charente, and Agenais, if they should fall to the crown of France by the death of Alphonse of Poitiers. In addition, Louis promised to provide Henry with sufficient money to maintain 500 knights for two years. This treaty was very unpopular in France, since the king surrendered a large part of France that Henry had not won; but Louis was satisfied that the absolute sovereignty over the northern provinces more than equalled the loss in the south. Historians still disagree as to its wisdom. Louis made a similar compromise with the king of Aragon in the treaty of Corbeil, 1258, whereby he gave up the claims of kings of France to Roussillon and Barcelona, which went back to the conquest of Charlemagne. The king of Aragon in his turn gave up his claims to part of Provence and Languedoc, with the exception of Narbonne. Louis's position was strikingly shown in 1264 when the English barons submitted their attempt to bind Henry III. by the Provisions of Oxford to his arbitration. His reply in the "Dit" or Mise of Amiens was a flat denial of all the claims of the barons and failed to avert the civil war. Louis was more successful in preventing feuds between his own nobles: between the counts of Brittany and Champagne over the succession to Navarre; the dauphin of Vienne (Guigues VII.) and Charles of Anjou; the count of Burgundy and the count of Châlons; Henry of Luxemburg and the duke of Lorraine with the count of Bar. Upon the whole he maintained peace with his neighbours, although both Germany and England were torn with civil wars. He reluctantly consented to sanction the conquest of Naples by his brother, Charles, duke of Anjou, and it is possible that he yielded here in the belief that it was a step toward another crusade.

On the 24th of March 1267, Louis called to Paris such of his knights as were not with Charles of Anjou in Naples. No one knew why he had called them; but when the king in full assembly proclaimed his purpose of going on a second crusade, few ventured to refuse the cross. Three years of preparation followed; then on the 1st of July 1270 they sailed from Aigues Mortes for Tunis, whither the expedition seems to have been directed by the machinations of Charles of Anjou, who, it is claimed, persuaded his brother that the key to Egypt and to Jerusalem was that part of Africa which was his own most dangerous neighbour. After seventeen days' voyage to Carthage, one month of the summer's heat and plague decimated the army, and when Charles of Anjou arrived he found that Louis himself had died of the plague on the 25th of August 1270.

Saint Louis stands in history as the ideal king of the middle ages. An accomplished knight, physically strong in spite of his ascetic practices, fearless in battle, heroic in adversity, of imperious temperament, unyielding when sure of the justness of his cause, energetic and firm, he was indeed "every inch a king." Joinville says that he was taller by a head than any of his knights. His devotions would have worn out a less robust saint. He fasted much, loved sermons, regularly heard two masses a day and all the offices, dressing at midnight for matins in his chapel, and surrounded even when he travelled by priests on horseback chanting the hours. After his return from the first crusade, he wore only grey woollens in winter, dark silks in summer. He built hospitals, visited and tended the sick himself, gave charity to over a hundred beggars daily. Yet he safeguarded the royal dignity by bringing them in at the back door of the palace, and by a courtly display greater than ever before in France. His naturally cold temperament was somewhat relieved by a sense of humour, which however did not prevent his making presents of haircloth shirts to his friends. He had no favourite, nor prime minister. Louis was canonized in 1297.

As a statesman Louis IX. has left no distinct monument. The famous "*Établissements* of St Louis" has been shown in our own day to have been private compilation. It was a *coutumier* drawn up before 1273, including, as well as some royal decrees, the civil and feudal law of Anjou, Maine and the Orléanais. Recent researches have also denied Louis the credit of having aided the communes. He exploited them to the full. His standpoint in this respect was distinctly feudal. He treated his clergy as he did his barons, enforcing the supremacy of royal justice, and strongly opposing the exactions of the pope until the latter part of his reign, when he joined forces with him to extort as much as possible from the clergy. At the end of the reign most of the sees and monasteries of France were in debt to the Lombard bankers. Finally, the reign of Saint Louis saw the introduction of the pontifical inquisition into France.

There are numerous portraits of St Louis, but they are unauthentic and contradictory. In 1903 M. Salomon Reinach claimed to have found in the heads sculptured in the angles of the arches of the chapel at St Germain portraits of St Louis, his brothers and sisters, and Queen Marguerite, or Blanche, made between 1235 and 1240. This conjectured portrait somewhat resembles the modern type, which is based upon a statue of Charles V. once in the church of the Celestins in Paris, and which Lenoir mistakenly identified as that of Louis IX. The king had eleven children, six sons and five daughters, among them being his successor, Philip III., and Robert, count of Clermont, the ancestor of Henry IV.

The best contemporary accounts of Louis IX. are the famous Memoirs of the Sire Jean de Joinville (*q.v.*), published by N. de Wailly for the *Soc. de l'Hist. de France*, under the title *Histoire de Saint Louis* (Paris, 1868), and again with translation (1874); English translation by J. Hutton (1868). See also William of Nangis, *Gesta Ludovici IX.*, edited by M. Bouquet in vol. xx. of the *Recueil des historiens des Gaules et de la France*. Of modern works may be mentioned C. V. Langlois in E. Lavisse's *Histoire de France*, tome iii., with references to literature; Frederick Perry, *Saint Louis, the Most Christian King* (New York, 1901); E. J. Davis, *The Invasion of Egypt by Louis IX. of France* (1898); H. A. Wallon, *Saint Louis et son temps* (1875); A. Lecoy de la Marche, *Saint Louis* (Tours, 1891); and E. Berger, *Saint Louis et Innocent IV* (Paris, 1893), and *Histoire de Blanche de Castille* (1895). See also *The Court of a Saint*, by Winifred F. Knox (1909).

(J. T. S.*)

LOUIS X. (1289-1316), king of France and Navarre, called *le Hutin* or "the Quarreller," was the son of Philip IV. and of Jeanne of Navarre. He was born at Paris on the 4th of October 1289, took the title king of Navarre on the death of his mother, on the 2nd of April 1305, and succeeded Philip IV. in France on the 29th of November 1314, being crowned at Reims in August 1315. The origin of his surname is uncertain. Louis X. is a somewhat indistinct figure among the kings of France, the preponderating influence at court during his short reign being that of his uncle, Charles of Valois. The reign began with reaction against the policy of Philip IV. Private vengeance was wreaked on Enguerrand de Marigny, who was hanged, Pierre de Latilli, bishop of Châlons and chancellor, and Raoul de Presle, advocate of the parlement, who were imprisoned. The leagues of the lesser country gentry, formed in 1314 before the accession of Louis, continued to demand the ancient privileges of the nobility,—tourneys, private wars and judgment of nobles not by king's officers but by their peers—and to protest against the direct call by the king of their vassals to the royal army. Louis X. granted them charters in which he made apparent concessions, but used evasive formulas which in reality ceded nothing. There was a charter to the Normans, one to the Burgundians, one to the Languedocians (1315). Robert de Béthune, count of Flanders, refused to do homage, and his

French fiefs were declared confiscate by a court of his peers. In August 1315 Louis X. led an army toward Lille, but the flooded Lys barred his passage, the ground was so soaked with rains that the army could not advance, and it was thrown back, without a battle, on Tournai. Need of money inspired one famous ordinance of this reign; in 1315 the serfs of the royal domains were invited to buy their civil liberty,—an invitation which did not meet with great enthusiasm, as the freedman was merely freed for further exploitation, and Philip V. was obliged to renew it in 1318. Louis X. died suddenly on the 5th of June 1316. His first wife was Margaret, daughter of Robert II., duke of Burgundy; she was accused of adultery and died a prisoner in the château Gaillard. By her he had one daughter, Jeanne, wife of Philip, count of Evreux and king of Navarre. By his second wife Clémence, daughter of Charles Martel, titular king of Hungary, he left a posthumous son, King John I.

See Ch. Dufayard, "La réaction feodale sous les fils de Philippe le Bel," in *Revue historique* (1894); Paul Lehugeur, *Histoire de Philippe le Long, roi de France* (Paris, 1897); and Joseph Petit, *Charles de Valois* (Paris, 1900).

(J. T. S.*)

LOUIS XI. (1423-1483), king of France, the son of Charles VII. and his queen, Marie of Anjou, was born on the 3rd of July 1423, at Bourges, where his father, then nicknamed the "King of Bourges," had taken refuge from the English. At the birth of Louis XI. part of France was in English hands; when he was five years old, Joan of Arc appeared; he was just six when his father was crowned at Reims. But his boyhood was spent apart from these stirring events, in the castle of Loches, where his father visited him rarely. John Gerson, the foremost theologian of France, wrote a manual of instructions (still extant) for the first of his tutors, Jean Majoris, a canon of Reims. His second tutor, Bernard of Armagnac, was noted for his piety and humility. If, as has been claimed, Louis owed to them any of his tendency to prefer the society of the poor, or rather of the *bourgeois*, to that of the nobility, their example was his best lesson in the craft of kingship. In June 1436, when scarcely thirteen, he was married to Margaret (*c.* 1425-1445), daughter of James I. of Scotland, a princess of about his own age, but sickly and romantic, and in every way his opposite. Three years after this unhappy marriage Louis entered upon his stormy political career. Sent by his father in 1439 to direct the defence of Languedoc against the English, and to put down the brigandage in Poitou, he was induced by the rebellious nobles to betray his trust and place himself at the head of the Praguerie (*q.v.*). Charles VII. pardoned him this rebellion, due to his ambition and the seductive proposal of the nobles to make him regent. The following year he was fighting the English, and in 1443 aided his father to suppress the revolt of the count of Armagnac. His first important command, however, was in the next year, when he led an army of from 15,000 to 20,000 mercenaries and brigands,—the product of the Hundred Years' War,—against the Swiss of the canton of Basel. The heroism of some two hundred Swiss, who for a while held thousands of the French army at bay, made a great impression on the young prince. After an ineffective siege of Basel, he made peace with the Swiss confederation, and led his robber soldiers into Alsace to ravage the country of the Habsburgs, who refused him the promised winter quarters. Meanwhile his father, making a parallel campaign in Lorraine, had assembled his first brilliant court at Nancy, and when Louis returned it was to find the king completely under the spell of Agnes Sorel. He at first made overtures to members of her party, and upon their rejection through fear of his ambition, his deadly hatred of her and of them involved the king. The death in 1445 of his wife Margaret, who was a great favourite of Charles VII., made the rupture complete. From that year until the death of the king father and son were enemies. Louis began his rebellious career by a futile attempt to seduce the cities of Agenais into treason, and then he prepared a plot to seize the king and his minister Pierre de Brézé. Antoine de Chabannes, who was to be the instrument of the plot, revealed it to Charles, and Louis was mildly punished by being sent off to Dauphiné (1447). He never saw his father again.

Louis set out to govern his principality as though it were an independent state. He dismissed the governor; he determined advantageously to himself the boundaries between his state and the territories of the duke of Savoy and of the papacy; and he enforced his authority over perhaps the most unruly nobility in western Europe, both lay and ecclesiastical. The right of private warfare was abolished; the bishops were obliged to give up most of their temporal jurisdiction, the scope of their courts was limited, and appeals to Rome were curtailed. On the other hand, Louis granted privileges to the towns and consistently used their alliance to overthrow the nobility. He watched the roads, built new ones, opened markets, protected the only bankers of the country, the Jews, and reorganized the administration so as to draw the utmost revenue possible from the prosperity thus secured. His ambition led him into foreign entanglements; he made a secret treaty with the duke of Savoy which was to give him right of way to Genoa, and made arrangements for a partition of the duchy of Milan. The alliance with Savoy was sealed by the marriage of Louis with Charlotte, daughter of Duke Lodovico, in 1452, in spite of the formal prohibition of Charles VII. The king marched south, but withdrew again leaving his son unsubdued. Four years later, as Charles came to the Bourbonnais, Louis, fearing for his life, fled to Flanders to the court of Philip the Good, duke of Burgundy, leaving Dauphiné to be definitely annexed to the crown of France. The policy of the dauphin was reversed, his ten years' work was undone. Meanwhile he was installed in the castle of Genappe, in Brabant, where he remained until the death of his father. For this he waited impatiently five years, keeping himself posted by spies of every stage of the king's last illness, and thus laying himself open to the accusation, believed in by Charles himself, that he had hastened the end by poison, a charge which modern historians deny.

On the 15th of August 1461, Louis was anointed at Reims, and Philip of Burgundy, as *doyen* of the peers of France, placed the crown on his head. For two months Philip acted as though the king were still his protégé. But in the midst of the festivities with which he was entertaining Paris, the duke found that Louis ventured to refuse his candidates for office, and on the 24th of September the new king left abruptly for Touraine. His first act was to strike at the faithful ministers of Charles VII. Pierre de Brézé and Antoine de Chabannes were captured and imprisoned, as well as men of sterling worth like Étienne Chevalier. But the king's shrewdness triumphed before long over his vengeance, and the more serviceable of the officers of Charles VII. were for the most part soon reinstated, Louis' advisers were mostly men of the middle class. He had a ready purse for men of talent, drawing them from England, Scotland, Italy, Spain and Portugal. Such a motley throng of competent men had never before been seen at the court of France. Their origin, their previous crimes or virtues, their avarice or brutality, were indifferent to him so long as they served him loyally. Torture and imprisonment awaited them, whether of high or low degree, if he fancied that they were betraying him. Among the most prominent of these men in addition to Brézé, Chevalier and Chabannes, were Tristan Lermite, Jean de Daillon, Olivier le Dain (the barber), and after 1472, Philippe de Commines, drawn from the service of Charles the Bold of Burgundy, who became his most intimate adviser and biographer. Surrounded by men like these Louis fought the last great battle of French royalty with feudalism.

Louis XI. began his reign with the same high-handed treatment of the nobles which had marked his rule in Dauphiné, going so far as to forbid them to hunt without his permission. He forced the clergy to pay long-neglected feudal dues, and intrigued against the great houses of Anjou and Orleans in Italy. The malcontent nobles soon began to plan revolt. Discharged officers of Charles VII. like Jean Dunois and John II. duke of Bourbon, stirred up hostility to the new men of the king, and Francis II. duke of Brittany was soon embroiled with Louis over an attempt to assert royal control over that practically independent duchy. The dissatisfied nobility found their greatest ally in Charles the Bold, afterwards duke of Burgundy, and in 1465 formed a "league of public welfare" and declared war on their king. The nominal head was the king's brother Charles, duke of Berry, then eighteen years old, a weak character, the tool of the rebels as he was later the dupe of the king. Every great noble in France was in the league, except Gaston de Foix—who kept the south of France for the king,—and the counts of Vendôme and Eu. The whole country seemed on the verge of anarchy. It was saved by the refusal of the lesser gentry to rise, and by the

alliance of the king with the citizen class, which was not led astray by the pretences of regard for the public weal which cloaked the designs of the leaguers. After a successful campaign in the Bourbonnais, Louis fought an indecisive battle with the Burgundians who had marched on Paris at Montlhéry, on the 16th of July 1465, and then stood a short siege in Paris. On the 28th of September he made a truce with Charles the Bold, and in October the treaties of Conflans and Saint Maur-les-Fossés, ended the war. The king yielded at all points; gave up the “Somme towns” in Picardy, for which he had paid 200,000 gold crowns, to Philip the Good, thus bringing the Burgundians close to Paris and to Normandy. Charles, the king’s brother, was given Normandy as an apanage, thus joining the territories of the rebellious duke of Brittany with those of Charles the Bold. The public weal was no longer talked about, while the kingdom was plundered both by royal tax gatherers and by unsubdued feudal lords to pay the cost of the war.

After this failure Louis set to work to repair his mistakes. The duke of Bourbon was won over by the gift of the government of the centre of France, and Dunois and Chabannes by restoring them their estates. Two months after he had granted Normandy to Charles, he took advantage of a quarrel between the duke of Brittany and his brother to take it again, sending the duke of Bourbon “to aid” Charles, while Dunois and Chabannes prepared for the struggle with Burgundy. The death of Duke Philip, on the 15th of June 1467, gave Charles the Bold a free hand. He gained over Edward IV. of England, whose sister Margaret he married; but while he was celebrating the wedding Louis invaded Brittany and detached Duke Francis from alliance with him. Normandy was completely reduced. The king had won a great triumph. It was followed by his greatest mistake. Eager as he always was to try diplomacy instead of war, Louis sent a gift of 60,000 golden crowns to Charles and secured a safe conduct from him for an interview. The interview took place on the 9th of October 1468 at Péronne. News came on the 11th that, instigated by the king of France, the people of Liége had massacred their bishop and the ducal governor. The news was false, but Charles, furious at such apparent duplicity, took Louis prisoner, only releasing him, three days later, on the king signing a treaty which granted Flanders freedom from interference from the parlement of Paris, and agreeing to accompany Charles to the siege of his own ally, Liége. Louis made light of the whole incident in his letters, but it marked the greatest humiliation of his life, and he was only too glad to find a scapegoat in Cardinal Jean Balue, who was accused of having plotted the treason of Péronne. Balue thereupon joined Guillaume de Harancourt, bishop of Verdun, in an intrigue to induce Charles of France to demand Champagne and Brie in accordance with the king’s promise to Charles the Bold, instead of distant Guienne where the king was determined to place him. The discovery of this conspiracy placed these two high dignitaries in prison (April 1469). Balue (*q.v.*) spent eleven years in prison quarters, comfortable enough, in spite of the legend to the contrary, while Harancourt was shut up in an iron cage until 1482. Then Louis, inducing his brother to accept Guienne,—where, surrounded by faithful royal officers, he was harmless for the time being,—undertook to play off the Lancastrians against Edward IV. who, as the ally of Charles the Bold, was menacing the coast of Normandy. Warwick, the king-maker, and Queen Margaret were aided in the expedition which in 1470 again placed Henry VI. upon the English throne. In the autumn Louis himself took the offensive, and royal troops overran Picardy and the Maconnais to Burgundy itself. But the tide turned against Louis in 1471. While Edward IV. won back England by the battles of Barnet and Tewkesbury, Charles the Bold besieged Amiens, and Louis was glad to make a truce, availing himself of the double dealing of the constable, the count of Saint Pol, who, trying to win an independent position for himself in Picardy, refused his aid to Charles unless he would definitely join the French nobility in another rising against the king. This rising was to be aided by the invasion of France by John II. of Aragon, Yolande, duchess of Savoy, and Edward IV. of England, who was to be given the old Plantagenet inheritance. The country was saved a desperate civil war by the death of the king’s brother, Charles, the nominal head of the coalition, on the 24th of May 1472. Louis’ joy on receiving news of this death knew no bounds. Charles the Bold, who had again invaded France, failed to take Beauvais, and was obliged to make a lasting truce. His projects were henceforth to be directed towards Germany. Louis then forced the duke of Brittany to make peace, and turned against John V. count of Armagnac, whose death at the opening of March 1473 ended the power of one of the most dangerous houses of the south. The first period of Louis’ reign was closed, and with it closed for ever the danger of dismemberment of France. John of Aragon continued the war in Roussillon and Cerdagne, which Louis had seized ten years before, and a most desperate rising of the inhabitants protracted the struggle for two years. After the capture of Perpignan on the 10th of March 1475, the wise and temperate government of Imbert de Batarnay and Boffile de Juge slowly pacified the new provinces. The death of Gaston IV. count of Foix in 1472 opened up the long diplomatic struggle for Navarre, which was destined to pass to the loyal family of Albret shortly after the death of Louis. His policy had won the line of the Pyrenees for France.

The overthrow of Charles the Bold was the second great task of Louis XI. This he accomplished by a policy much like that of Pitt against Napoleon. Louis was the soul of all hostile coalitions, especially urging on the Swiss and Sigismund of Austria, who ruled Tirol and Alsace. Charles’s ally, Edward IV., invaded France in June 1475, but Louis bought him off on the 29th of August at Picquigny—where the two sovereigns met on a bridge over the Somme, with a strong grille between them, Edward receiving 75,000 crowns, and a promise of a pension of 50,000 crowns annually. The dauphin Charles was to marry Edward’s daughter. Bribery of the English ministers was not spared, and in September the invaders recrossed to England. The count of Saint Pol, who had continued to play his double part, was surrendered by Charles to Louis, and executed, as was also Jacques d’Armagnac, duke of Nemours. With his vassals terrorized and subdued, Louis continued to subsidize the Swiss and René II. of Lorraine in their war upon Charles. The defeat and death of the duke of Burgundy at Nancy on the 5th of January 1477 was the crowning triumph of Louis’ diplomacy. But in his eagerness to seize the whole inheritance of his rival, Louis drove his daughter and heiress, Mary of Burgundy, into marriage with Maximilian of Austria (afterwards the emperor Maximilian I.), who successfully defended Flanders after a savage raid by Antoine de Chabannes. The battle of Guinegate on the 7th of August 1479 was indecisive, and definite peace was not established until after the death of Mary, when by the treaty of Arras (1482) Louis received Picardy, Artois and the Boulonnais, as well as the duchy of Burgundy and Franche Comté. The Austrians were left in Flanders, a menace and a danger. Louis failed here and in Spain; this failure being an indirect cause of that vast family compact which surrounded France later with the empire of Charles V. His interference in Spain had made both John II. of Aragon and Henry IV. of Castile his enemies, and so he was unable to prevent the marriage of their heirs, Ferdinand and Isabella. But the results of these marriages could not be foreseen, and the unification of France proved of more value than the possession of so widespread an empire. This unification was completed (except for Brittany) and the frontiers enlarged by the acquisition, upon the death of René of Anjou in 1480, of the duchies of Anjou and Bar, and in 1481 of Maine and Provence upon the death of Charles II., count of Maine. Of the inheritance of the house of Anjou only Lorraine escaped the king.

Failure in Spain was compensated for in Italy. Without waging war Louis made himself virtual arbiter of the fate of the principalities in the north, and his court was always besieged by ambassadors from them. After the death of Charles the Bold, Yolande, duchess of Savoy, was obliged to accept the control of Louis, who was her brother. In Milan he helped to place Lodovico il Moro in power in 1479, but he reaped less from this supple tyrant than he had expected. Pope Sixtus IV. the enemy of the Medici, was also the enemy of the king of France. Louis, who at the opening of his reign had denounced the Pragmatic Sanction of 1438, had played fast and loose with the papacy. When Sixtus threatened Florence after the Pazzi conspiracy, 1478, Louis aided Lorenzo dei Medici to form an alliance with Naples, which forced the papacy to come to terms.

More than any other king of France, Louis XI. was a “bourgeois king.” The upper bourgeois, the aristocracy of his “good cities,” were his allies both against the nobles and against the artisan class, whenever they revolted, driven to desperation by the oppressive royal taxes which furnished the money for his wars or diplomacy. He ruled like a modern capitalist; placed his bribes like investments in the courts of his enemies; and, while draining the land of enormous sums, was pitiless toward the two productive portions of his realm, the country population and the artisans. His heartlessness toward the former provoked even an accomplice like Commines to protest. The latter were kept down by numerous edicts, tending to restrict to certain privileged families the rank of master workman in the gilds. There was the paternalism of a Frederick the Great in his encouragement of the silk industry,—“which all idle people ought to be made to work at,”—in his encouragement of

commerce through the newly acquired port of Marseilles and the opening up of market placed. He even dreamed of a great trading company "of two hundred thousand livres or more," to monopolize the trade of the Mediterranean, and planned to unify the various systems of weights and measures. In 1479 he called a meeting of two burgesses from each "good city" of his realm to consider means for preventing the influx of foreign coin. Impatient of all restraint upon his personal rule, he was continually in violent dispute with the parlement of Paris, and made "justice" another name for arbitrary government; yet he dreamed of a unification of the local customary laws (*coûtumes*) of France. He was the perfect model of a tyrant. The states-general met but once in his reign, in 1468, and then no talk of grievances was allowed; his object was only to get them to declare Normandy inalienable from the crown. They were informed that the king could raise his revenue without consulting them. Yet his budgets were enormously greater than ever before. In 1481 the *taille* alone brought in 4,600,000 livres, and even at the peaceful close of his reign his whole budget was 4,655,000 livres—as against 1,800,000 livres at the close of his father's reign.

The king who did most for French royalty would have made a sorry figure at the court of a Louis XIV. He was ungainly, with rickety legs. His eyes were keen and piercing, but a long hooked nose lent grotesqueness to a face marked with cunning rather than with dignity. Its ugliness was emphasized by the old felt hat which he wore,—its sole ornament the leaden figure of a saint. Until the close of his life, when he tried to mislead ambassadors as to the state of his health by gorgeous robes, he wore the meanest clothes. Dressed in grey like a pilgrim, and accompanied by five or six trustworthy servants, he would set out on his interminable travels, "ambling along on a good mule." Thus he traversed France, avoiding all ceremony, entering towns by back streets, receiving ambassadors in wayside huts, dining in public houses, enjoying the loose manners and language of his associates, and incidentally learning at first hand the condition of his people and the possibilities of using or taxing them—his needs of them rather than theirs of him. He loved to win men, especially those of the middle class, by affability and familiarity, employing all his arts to cajole and seduce those whom he needed. Yet his honied words easily turned to gall. He talked rapidly and much, sometimes for hours at a time, and most indiscreetly. He was not an agreeable companion, violent in his passions, nervous, restless, and in old age extremely irascible. Utterly unscrupulous, and without a trace of pity, he treated men like pawns, and was content only with absolute obedience.

But this Machiavellian prince was the genuine son of St Louis. His religiosity was genuine if degenerate. He lavished presents on influential saints, built shrines, sent gifts to churches, went on frequent pilgrimages and spent much time in prayer—employing his consummate diplomacy to win celestial allies, and rewarding them richly when their aid secured him any advantage. St Martin of Tours received 1200 crowns after the capture of Perpignan. He tried to bribe the saints of his enemies, as he did their ministers. An unfaltering faith taught him the value of religion—as a branch of politics. Finally, more in the spirit of orthodoxy, he used the same arts to make sure of heaven. When the ring of St Zanobius and the blood of Cape Verde turtles gave him no relief from his last illness, he showered gifts upon his patron saints, secured for his own benefit the masses of his clergy, and the most potent prayers in Christendom, those of the two most effective saints of his day, Bernardin of Doulins and Francis of Paolo.

During the last two or three years of his life Louis lived in great isolation, "seeing no one, speaking with no one, except such as he commanded," in the château of Plessis-les-Tours, that "spider's nest" bristling with watch towers, and guarded only by the most trusty servitors. A swarm of astrologers and physicians preyed upon his fears—and his purse. But, however foolish in his credulity, he still made his strong hand felt both in France and in Italy, remaining to the last "the terrible king." His fervent prayers were interrupted by instructions for the regency which was to follow. He died on the 30th of August 1483, and was buried, according to his own wish, without royal state, in the church at Cléry, instead of at St Denis. He left a son, his successor, Charles VIII., and two daughters.

See the admirable résumé by Charles Petit-Dutaillis in Lavisse's *Histoire de France*, tome iv. pt. ii. (1902), and bibliographical indications given there. Michelet's wonderful depiction in his *Histoire de France* (livres 13 to 17) has never been surpassed for graphic word-painting, but it is inaccurate in details, and superseded in scholarship. Of the original sources for the reign the *Lettres de Louis XI.* (edited by Charavay and Vaesen, 8 vols., 1883-1902), the celebrated *Mémoires* of Philippe de Commines and the *Journal* of Jean de Royl naturally come first. The great mass of literature on the period is analysed in masterly fashion by A. Molinier, *Sources de l'histoire de France* (tome v. pp. 1-146), and to this exhaustive bibliography the reader is referred for further research. See also C. Hare, *The Life of Louis XI.* (London, 1907).

(J. T. S.*)

LOUIS XII. (1462-1515), king of France, was grandson of Louis of Orleans, the brother of Charles VI., and son of the poet prince, Charles of Orleans, who, after the battle of Agincourt, spent twenty-five years of captivity in England. Louis was duke of Orleans until his accession to the throne, and he was fourteen years old when Louis XI. gave him the hand of his second daughter, Joan the Lame. In the first years of the reign of Charles VIII., Louis made a determined stand against the government of the Beaujeus, stirred up coalitions of the feudal nobles against them, and was finally defeated and taken prisoner at St Aubin du Cormier in 1488. Charles VIII. set him at liberty in 1491. These successive checks tamed him a little. In the Italian expedition of 1494 he commanded the vanguard of the royal army, occupied Genoa, and remained in the north of Italy, menacing Milan, on which he was already dreaming of asserting his rights. The children of Charles VIII. having died in infancy, he became heir-presumptive to the throne, and succeeded Charles in 1499. Louis was then thirty-six years old, but he seems to have grown old prematurely. He was fragile, narrow-shouldered and of a sickly constitution. His intelligence was mediocre, his character weak, and he allowed himself to be dominated by his wife, Anne of Brittany, and his favourite the Cardinal d'Amboise. He was a good king, full of moderation and humanity, and bent upon maintaining order and improving the administration of justice. He enjoyed a genuine popularity, and in 1506 the estates of Tours conferred on him the surname of *Père du Peuple*. His foreign policy, which was directed wholly towards Italy, was for the most part unskilful; to his claims on Naples he added those on Milan, which he based on the marriage of his grandfather, Louis of Orleans, with Valentina Visconti. He led in person several armies into Italy, and proved as severe and pitiless towards his enemies as he was gentle and clement towards his subjects. Louis had two daughters. After his accession he had divorced his virtuous and ill-favoured queen, Joan, and had married, in 1499, Anne of Brittany, the widow of Charles VIII. On her death in January 1514, in order to detach England from the alliance against him, he married on the 9th of October 1514, Mary Tudor, sister of Henry VIII. of England (see MARY, queen of France). He died on the 1st of January 1515.

For a bibliography of the printed sources see Henri Hauser, *Les Sources de l'histoire de France, XVI^e siècle*, vol. 1. (Paris, 1906). The principal secondary authorities are De Maulde, *Histoire de Louis XII.* (Paris, 1889-1893); Le Roux de Lincy, *Vie de la reine Anne de Bretagne* (Paris, 1860); H. Lemonnier, *Les Guerres d'Italie* (Paris, 1903) in the *Histoire de France* by E. Lavisse.

(J. I.)

LOUIS XIII. (1601-1643), king of France, was the son of Henry IV. and of Marie de' Medici. He became king on his father's assassination in 1610; but his mother at once seized the full powers of regent. She determined to reverse the policy of her husband and to bring France into alliance with Spain and the Austrian house, upon which power Henry had been meditating an attack at the time of his death. Two marriages were designed to cement this alliance. Louis was to marry Anne of Austria, daughter of the Spanish king, Philip III., and the Spanish prince, afterwards Philip IV., himself was to marry the Princess Elizabeth, the king's sister. Notwithstanding the opposition of the Protestants and nobles of France, the queen carried through her purpose and the marriages were concluded in 1615. The next years were full of civil war and political intrigue, during which the queen relied upon the Marshal d'Ancre. Louis XIII. was a backward boy, and his education had been much neglected. We have the fullest details of his private life, and yet his character remains something of a mystery. He was fond of field sports and seemed to acquiesce in his mother's occupation of power and in the rule of her favourites. But throughout his life he concealed his purposes even from his closest friends; sometimes it seems as if he were hardly conscious of them himself. In 1617 he was much attached to Charles d'Albert, sieur de Luynes; and with his help he arrested Marshal d'Ancre, and on his resistance had him assassinated. From this time to her death the relation between the king and his mother was one of concealed or open hostility. The article on FRANCE must be consulted for the intricate events of the following years.

The decisive incident for his private life as well as for his reign was the entrance of Cardinal Richelieu, hitherto the queen's chief adviser, into the king's council in 1624. Henceforth the policy of France was directed by Richelieu, who took up in its main features the system of Protestant alliances and opposition to the power of Austria and Spain, which had been begun by Henry IV. and had been interrupted by the queen-mother during the regency; while he asserted the power of the crown against all rivals at home. This policy had remarkable results for the king's private life. It not only brought him into unremitting conflict with the Protestants and the nobles of France, but also made him the enemy of his mother, of his brother Gaston of Orleans, who made himself the champion of the cause of the nobles, and sometimes even of his wife. It is not easy to define his relations to Richelieu. He was convinced of his loyalty and of his genius, and in the end always supported his policy. But he disliked the friction with his family circle which this policy produced. In the difficulty with which he expressed himself and in a certain indecision of character the king was curiously unlike his father, the frank and impetuous Henry of Navarre, and his absolute son Louis XIV. He took a great interest in all the externals of war. He was present, and is said to have played an important part at the passage of Susa in 1629, and also eagerly participated in the siege of Rochelle, which surrendered in the same year. But for the most part his share in the great events of the reign was a passive one. The one all-important fact was that he supported his great minister. There were certain occasions when it seemed as if that support would be denied. The chief of these was what is known as the "Day of Dupes" (1630). Then the queen-mother and the king's brother passionately attacked the minister, and for a moment it was believed that Richelieu was dismissed and that the queen-mother and a Spanish policy had triumphed. But the sequel only strengthened the power of the minister. He regained his ascendancy over the king, punished his enemies and forced Marie de' Medici and Gaston of Orleans to sue for pardon. In 1631 Gaston fled to Lorraine and the queen-mother to Brussels. Gaston soon returned, to plot, to fail and to sue for pardon again and again; but Marie de'Medici ended her life in exile.

Richelieu's position was much strengthened by these incidents, but to the end of life he had to struggle against conspiracies which were designed to deprive him of the king's support, and usually Gaston of Orleans had some share in these movements. In 1632 the duke of Montmorency's conspiracy brought its leader to the scaffold. But the last great effort to overthrow Richelieu was closely connected with the king. Louis XIII. had from the beginning of his reign had favourites—young men for the most part with whom he lived freely and intimately and spoke of public affairs lightly and unreservedly; and who in consequence often exaggerated their influence over him. Henri d'Effiat, marquis de Cinq-Mars, was the last of these favourites. The king is said to have allowed him to speak hostilely of Richelieu and even to recall the assassination of Marshal d'Ancre. Cinq-Mars believed himself secure of the king's favour. He entered into negotiations with Spain and was secretly supported by Gaston of Orleans. But Richelieu discovered his treasonous relations with Spain and by this means defeated his plot. Louis was reconciled to his minister. "We have lived too long together to be separated" he is reported to have said (September 1642). Yet when Richelieu died in December of the same year he allowed himself to speak of him in a jealous and satirical tone. He died himself a few months later (May 1643).

His nature was timid, lethargic and melancholy, and his court was not marked by the scandals which had been seen under Henry IV. Yet Mademoiselle de la Fayette and Madame d'Hautefort and others are said to have been his mistresses. His brother Gaston survived him, but gave unexpectedly little trouble during the wars of the Fronde which ensued on the death of Louis XIII.

The chief source of information on Louis XIII.'s life is to be found in the contemporary memoirs, of which the chief are: Bassompierre, Fontenay-Mareuil, Gaston d'Orléans, Montrésor, Omer Talon. Richelieu's own Memoirs are chiefly concerned with politics and diplomacy. Of modern works those most directly bearing on the king's personal life are R. de Beauchamp, *Louis XIII. d'après sa correspondance avec le cardinal de Richelieu*; G. Hanotaux, *Histoire du cardinal de Richelieu* (1893-1896); Rossignol, *Louis XIII. avant Richelieu*; M. Topin, *Louis XIII. et Richelieu* (1876). See too Professor R. Lodge, *Richelieu*; J. B. H. R. Capefigue, *Richelieu, Mazarin et la Fronde* (1835-1836); and Dr J. H. Bridges, *Richelieu, Mazarin and Colbert* (1866).

For full bibliography see G. Monod, *Bibliographie de l'histoire de France*; *Cambridge Modern History*, vol. iv. ("The Thirty Years' War"); Lavisse et Rambaud, *Histoire générale*, vol. v. ("Guerres de religion").

(A. J. G.*)

LOUIS XIV. (1638-1715), king of France, was born at Saint-Germain-en-Laye on the 5th of September 1638. His father, Louis XIII., had married Anne of Austria, daughter of Philip III., king of Spain, in 1615, but for twenty years the marriage had remained without issue. The childlessness of the king was a constant threat to the policy of his great minister Richelieu; for the king's brother and heir, Gaston of Orleans, was a determined opponent of that policy. The birth of the prince who was destined to reign as Louis XIV. was therefore hailed as a triumph, not less important than any of those won by diplomacy or arms. The death of his father made Louis XIV. king on the 14th of May 1643, but he had to wait sixteen years before he began to rule. Power lay for some time in the hands of the queen-mother and in those of her minister, Cardinal Mazarin, who found it difficult to maintain the power of the throne and the integrity of French territory during the domestic troubles of the Fronde and the last stages of the Thirty Year's War. The minister was hated as a foreigner, and the childhood of the king weakened the royal authority. Twice the court had to flee from Paris; once when there was a rumour of intended flight the populace was admitted to see the king in his bed. The memory of these humiliations played their part in developing later the autocratic ideas of Louis. Mazarin, in spite of all disadvantages, triumphed alike over his domestic and his foreign opponents. The Fronde was at an end by 1653; the peace of Westphalia (1648) and the peace of the Pyrenees (1659) marked the success of the arms and of the diplomacy of France. Louis XIV. was now twenty-one years of age and was anxious to rule as well as to reign. The peace of the Pyrenees was a decisive event in his personal history as well as in that of France, for one of its most important stipulations referred to his marriage. He had already been strongly attracted to one of the nieces of Mazarin, but

reasons of state triumphed over personal impulse; and it was agreed that the new friendship with Spain should be cemented by the marriage of Louis to his cousin, the Infanta Maria Theresa. A large dowry was stipulated for; and in consideration of this the king promised to forgo all claims that his wife might otherwise possess to the Spanish crown or any part of its territories. The dowry was never paid, and the king held himself free of his promise.

The marriage took place at once, and the king entered Paris in triumph in 1660. Mazarin died in the next year; but so strong was the feeling that the kings of France could only rule through a first minister that it was generally expected that Mazarin would soon have a successor. The king, however, at once announced his intention of being his own first minister; and from this resolution he never swerved. Whatever great qualities he may have lacked he certainly possessed industry and patience in the highest degree. He built up a thoroughly personal system of government, and presided constantly over the council and many of its committees. He was fond of gaiety and of sport; but neither ever turned him away from the punctual and laborious discharge of his royal duties. Even the greatest of his ministers found themselves controlled by the king. Fouquet, the finance minister, had accumulated enormous wealth during the late disturbances, and seemed to possess power and ambition too great for a subject. Louis XIV. found it necessary almost to conspire against him; he was overthrown and condemned to perpetual imprisonment. Those who had most of the king's confidence afterwards were Colbert for home affairs; Lionne for diplomacy; Louvois for war; but as his reign proceeded he became more self-confident and more intolerant of independence of judgment in his ministers.

His court was from the first one of great brilliance. In art and in literature, the great period, which is usually called by the king's name, had in some respects passed its zenith when he began to reign. But France was unquestionably the first state in Europe both in arms and arts, and within France the authority of the king was practically undisputed. The nation, proud of its pre-eminence and weary of civil war, saw in the king its true representative and the guarantee of its unity and success. Louis was singularly well fitted by his physical and intellectual gifts for the rôle of *Grand Monarque* and he played it to perfection. His wife Maria Theresa bore him children but there was no community of tastes between them, and the chief influence at court is to be found not in the queen but in the succession of avowed mistresses. Mademoiselle de la Vallière held the position from 1662 to 1670; she was then ousted by Madame de Montespan, who had fiercely intrigued for it, and whose proud and ambitious temper offered a great contrast to her rival. She held her position from 1670 to 1679 and then gave place to the still more famous Madame de Maintenon, who ruled, however, not as mistress but as wife. The events that brought about this incident form the strangest episode in the king's private life. Madame de Maintenon was the widow of the dramatist Scarron, and first came into relationship with the king as governess to his illegitimate children. She was a woman of unstained life and strongly religious temperament; and it was by this that she gained so great an influence over the king. Through her influence the king was reconciled to his wife, and, when Maria Theresa died in 1683, Madame de Maintenon shortly afterwards (in 1684) became the king's wife, though this was never officially declared. Under her influence the court lost most of its gaiety, and religion came to exercise much control over the life and the policy of the king.

The first years of the king's rule were marked by the great schemes of Colbert for the financial, commercial, industrial and naval reorganization of France, and in these schemes Louis took a deep interest. But in 1667 began the long series of wars, which lasted with little real intermission to the end of the reign (see France). In the steps that led to these wars and in their conduct the egotistic ambition and the vanity of the king played an important part; though he never showed real military skill and took no share in any military operations except in certain sieges. The War of Devolution (or the Queen's War) in 1667-68 to enforce the queen's claim to certain districts in the Spanish Netherlands, led to the Dutch War (1672-78), and in both these wars the supremacy of the French armies was clearly apparent. The next decade (1678-1688) was the real turning-point in the history of the reign, and the strength of France was seriously diminished. The chief cause of this is to be found in the revocation of the Edict of Nantes. The church had always opposed this settlement and had succeeded in altering it in many points. Now the new religious zeal and the autocratic temper of Louis XIV. came to the support of the church. The French Huguenots found their privileges decreased, and then, in 1685, the edict was altogether withdrawn. The results were ruinous to France. It was not only that she lost many thousands of her best citizens, but this blow against Protestantism deprived her of those Protestant alliances in Europe which had been in the past her great diplomatic support. Then the English Revolution came in 1688 and changed England from a wavering ally into the most determined of the enemies of France.

The war with the Grand Alliance, of which King William III. was the heart and soul, lasted from 1688 to 1697; and the treaty of Ryswick, which brought it to an end, deprived France of certain territories on her frontier. But Louis saw in the Spanish question a chance of more than making up for this loss. The Spanish king Charles II. was dying, and the future of the possessions of Spain was doubtful. The astute diplomacy of Louis succeeded in winning the inheritance for his grandson Philip. But this involved France and Europe in an immense war (1700) and by the peace of Utrecht (1713), though the French prince retained the Spanish crown, France had again to make concessions of territory.

Louis XIV. had shown wonderful tenacity of purpose during this disastrous war, and sometimes a nobler and more national spirit than during the years of his triumphs. But the condition of France was terrible. She was burdened with debt; the reforms of Colbert were ruined; and opposition to the king's régime began to make itself felt. Peace brought some relief to France, but the last years of the king's life were gloomy in the extreme. His numerous descendants seemed at one time to place the succession beyond all difficulty. But his eldest son, the dauphin, died in April 1711; his eldest grandson the duke of Burgundy in February 1712; and his great-grandson the duke of Brittany in March 1712. The heir to the throne was now the duke of Burgundy's son, the duke of Anjou, afterwards Louis XV. The king died on the 1st of September 1715, after the longest recorded reign in European history. The judgment of posterity has not repeated the flattering verdict of his contemporaries; but he remains the model of a great king in all that concerns the externals of kingship.

The reign of Louis XIV. is particularly rich in memoirs describing the life of the court. The chief are Madame de Motteville's memoirs for the period of the Fronde, and the letters cf Madame de Sévigné and the memoirs of Saint-Simon for the later period. The king's ideas are best seen in the *Mémoires de Louis XIV. pour l'instruction du dauphin* (edited by Dreyss, 2 vols.). His private life is revealed in the letters of Madame de Maintenon and in those of Madame, Duchesse d'Orléans. Of the ordinary historians of France Michelet is fullest on the private life of the king. Mention may also be made of Voltaire, *Siècle de Louis XIV.*; P. Clément, *Histoire de la vie et de l'administration de Colbert*; Sainte-Beuve, *Causeries de lundi*. Full bibliographies of the reign will be found in G. Monod's *Bibliographie de l'histoire de France*; vol. v. ("The Age of Louis XIV.") of the *Cambridge Modern History*; and vol. vi. ("Louis XIV.") of the *Histoire générale* of Lavisse and Rambaud.

(A. J. G.*)

LOUIS XV. (1710-1774), king of France, was the great-grandson of Louis XIV. and the third son of Louis, duke of Burgundy, and Marie Adelaide, princess of Savoy. The first son had died in 1705, and in 1712 the second son, the duke of Brittany, as well as his father and mother, was carried off by a mysterious disease. Louis was thus unexpectedly brought into the line of the succession, and was only five years old when Louis XIV. died. The dead king had endeavoured by his will to control the administration even after his death by a carefully selected council of regency, in which the duke of Orleans should have only the nominal presidency; but with the help of the parlement of Paris the arrangement was at once set aside, and the duke was declared regent with full traditional powers. The duke had capacity, but his life was so licentious that what influence he had upon the king was for evil. Fleury, bishop of Fréjus, was appointed his tutor, and the little king was sincerely

attached to him. The king attained his legal majority at the age of thirteen, shortly before the death of the duke of Orleans. His first minister was the incapable duke of Bourbon, who in 1725 procured the repudiation of the Spanish princess, to whom the king had been betrothed, and his marriage to Maria Leszczynska, daughter of the exiled king of Poland, then resident in Alsace. In 1726 the duke of Bourbon was displaced by the king's tutor, Bishop (afterwards Cardinal) Fleury, who exercised almost absolute power, for the king took little interest in affairs of state. His administration was successful and peaceful until the year 1734, when a disputed succession in Poland brought about the interference of France on behalf of the queen's father. France was unsuccessful in her immediate object, but at the peace of Vienna (1735) secured the possession of Lorraine. Up to this point the reign had been prosperous; but from this time on it is a record of declining national strength, which was not compensated by some days of military glory. Fleury's great age (he died still in office at the age of ninety) prevented him from really controlling the policy of France and of Europe. In 1740 the war of the Austrian Succession broke out and France drifted into it as an ally of Frederick of Prussia and the enemy of England, and of Maria Theresa of Austria.

On Fleury's death in 1743 no one took his place, and the king professed to adopt the example of Louis XIV. and to establish a personal autocracy. But he was not strong enough in will or intellect to give unity to the administration. The marquis d'Argenson writes that at the council table Louis "opened his mouth, said little and thought not at all," and again that "under the appearance of personal monarchy it was really anarchy that reigned." He had followed too in his domestic life the example of his predecessors. The queen for some time seems to have secured his affections, and she bore him seven children. But soon we hear of the royal mistresses. The first to acquire notoriety was the duchess of Châteauroux, the third sister of one family who held this position. She was at least in part the cause of the only moment of popularity which the king enjoyed. She urged him to take part personally in the war. France had just received a humiliating check at Dettingen, and the invasion of the north-eastern frontier was feared. The king went to Metz in 1744, and his presence there did something to ward off the danger. While the nation felt genuine gratitude for his energy and its success, he was reported to have fallen dangerously ill. The king, of whom it was said that the fear of hell was the only part of religion which had any reality for him, now dismissed the duchess of Châteauroux and promised amendment. Prayers were offered everywhere for his recovery, and the country was swept by a delirium of loyal enthusiasm, which conferred on him the title of *Louis le bien aimé*. But his future life disappointed all these hopes. The duchess of Châteauroux died in the same year, but her place was taken in 1745 by Madame de Pompadour. This woman had philanthropic impulses and some real interest in art and letters; but her influence on public affairs was a fatal one. She had many rivals during her lifetime and on her death in 1764 she was succeeded by Madame du Barry (*q.v.*). But the mention of these three women gives no idea of the degradation of the king's life. There has doubtless been exaggeration as to certain details, and the story of his seraglio at the *Parc aux cerfs* is largely apocryphal. But it would be difficult to mention the name of any European king whose private life shows such a record of vulgar vice unredeemed by higher aims of any kind. He was not without ambition, but without sufficient tenacity of purpose to come near to realizing it. To the last he maintained the pretence of personal rule, but the machinery of government fell out of gear, and the disorder of the finances was never remedied before the revolution of 1789.

The peace of Aix-la-Chapelle (1748), which ended the war of the Austrian Succession, brought no gains to France in spite of her victories at Fontenoy and Raucoux; and the king was blamed for the diplomatic failure. The interval between this war and the Seven Years' War (1756) saw that great reversal of alliances which is sometimes called the "Diplomatic Revolution"; whereby France repudiated the alliance of Frederick the Great and joined hands with her old enemy Austria. The intrigues of Madame de Pompadour played in this change an important though not a decisive part. It was the cause of immense disasters to France; for after a promising beginning, both by land and sea, France suffered reverses which lost her both India and Canada and deprived her of the leading position which she had so long held in Europe. Her humiliation was declared by the peace of Paris (1763).

The article on the history of France (*q.v.*) shows how there arose during the last years of Louis XV.'s reign a strong reaction against the monarchy and its methods. Military success had given it its strength; and its prestige was ruined by military failure. In the parlements, provincial and Parisian; in religion and in literature, a note of opposition is struck which was never to die until the monarchy was overthrown. France annexed Corsica in 1768, but this was felt to be the work of the minister Chauvelin, and reflected no credit on the king. He died in 1774 of smallpox. If the reign of his predecessor shows us almost the ideal of personal monarchy we may see in that of Louis XV. all the vices and errors exemplified which lie in wait for absolute hereditary rule which has survived the period of its usefulness.

For the king's life generally see the memoirs of Saint-Simon, d'Argenson, Villars and Barbier, and for the details of his private life E. Boutaric, *Correspondance secrète de Louis XV.*; Madame de Pompadour's *Correspondance* published by P. Malassi; Dietric, *Les Maîtresses de Louis XV.*; and Fleury, *Louis XV. intimes et les petites maîtresses* (1909).

For the system of secret diplomacy and organized espionage, known as the *Secret du roi*, carried on under the auspices of Louis XV., see Albert duc de Broglie, *Le Secret du roi. Correspondance secrète de Louis XV. avec ses agents diplomatiques 1752-1774* (Paris, 1878); and for a general account of the reign, H. Carré, *La France sous Louis XV.* (Paris, 1891). For other works, general and special, see G. Monod, *Bibliographie de la France*, and the bibliography in the *Histoire générale* of Lavisse and Rambaud, vol. vii., and the *Cambridge Modern History*, vol. vi.

(A. J. G.*)

LOUIS XVI. (1754-1793), king of France, was the son of Louis, dauphin of France, the son of Louis XV., and of Marie Joseph of Saxony, and was born at Versailles on the 23rd of August 1754, being baptized as Louis Augustus. His father's death in 1765 made him heir to the throne, and in 1770 he was married to Marie Antoinette, daughter of the empress Maria Theresa. He was just twenty years old when the death of Louis XV. on the 10th of May 1774 placed him on the throne. He began his reign under good auspices, with Turgot, the greatest living French statesman, in charge of the disorganized finances; but in less than two years he had yielded to the demand of the vested interests attacked by Turgot's reforms, and dismissed him. Turgot's successor, Necker, however, continued the régime of reform until 1781, and it was only with Necker's dismissal that the period of reaction began. Marie Antoinette then obtained that ascendancy over her husband which was partly responsible for the extravagance of the ministry of Calonne, and brought on the Revolution by the resulting financial embarrassment.[1] The third part of his reign began with the meeting of the states-general on the 4th of May 1789, which marked the opening of the Revolution. The revolt of Paris and the taking of the Bastille on the 14th of July were its results. The suspicion, not without justification, of a second attempt at a *coup d'état* led on the 6th of October to the "capture" of the king and royal family at Versailles by a mob from Paris, and their transference to the Tuileries. In spite of the growing radicalism of the clubs, however, loyalty to the king remained surprisingly strong. When he swore to maintain the constitution, then in progress of construction, at the festival of the federation on the 14th of July 1790, he was at the height of his popularity. Even his attempted flight on the 20th of June 1791 did not entirely turn the nation against him, although he left documents which proved his opposition to the whole Revolution. Arrested at Varennes, and brought back to Paris, he was maintained as a constitutional king, and took his oath on the 13th of September 1791. But already a party was forming in Paris which demanded his deposition. This first became noticeable in connexion with the affair of the Champ de Mars on the 17th of July 1791. Crushed for a time the party gained strength through the winter of 1791-1792. The declaration of war against the emperor Francis II., nephew of Marie Antoinette, was forced upon the king by those who wished to discredit him

by failure, or to compel him to declare himself openly an enemy to the Revolution. Their policy proved effective. The failure of the war, which intensified popular hatred of the Austrian queen, involved the king; and the invasion of the Tuileries on the 20th of June 1792 was but the prelude to the conspiracy which resulted, on the 10th of August, in the capture of the palace and the "suspension" of royalty by the Legislative Assembly until the convocation of a national convention in September. On the 21st of September 1792 the Convention declared royalty abolished, and in January it tried the king for his treason against the nation, and condemned him to death. He was executed on the 21st of January 1793.

Louis XVI. was weak in character and mentally dull. His courage and dignity during his trial and on the scaffold has left him a better reputation than he deserves. His diary shows how little he understood, or cared for, the business of a king. Days on which he had not shot anything at the hunt were blank days for him. The entry on the 14th of July 1789 was "nothing"! The greater part of his time was spent hunting. He also amused himself making locks, and a little at masonry. Awkward and uncourtly, at heart shy, he was but a poor figurehead for the stately court of France. At first he did not care for Marie Antoinette, but after he came under her influence, her thoughtless conduct compromised him, and it was largely she who encouraged him in underhand opposition to the Revolution while he pretended to accept it. The only point on which he had of his own initiative shown a strong objection to revolutionary measures was in the matter of the civil constitution of the clergy. A devoted and sincere Roman Catholic, he refused at first to sanction a constitution for the church in France without the pope's approval, and after he had been compelled to allow the constitution to become law he resolved to oppose the Revolution definitely by intrigues. His policy was both feeble and false. He was singularly unfortunate even when he gave in, delaying his acquiescence until it had the air of a surrender. It is often said that Louis XVI. was the victim of the faults of his predecessors. He was also the victim of his own.

Having lost his elder son in 1789 Louis left two children, Louis Charles, usually known as Louis XVII., and Marie Thérèse Charlotte (1778-1851), who married her cousin, Louis, duke of Angoulême, son of Charles X., in 1799. The "orphan of the Temple," as the princess was called, was in prison for three years, during which time she remained ignorant of the fate which had befallen her parents. She died on the 19th of October 1851. Her life by G. Lenôtre has been translated into English by J. L. May (1908).

See the articles French Revolution and Marie Antoinette. F. X. J. Droz, *Histoire du règne de Louis XVI.* (3 vols., Paris, 1860), a sane and good history of the period; and Arsène Houssaye, *Louis XVI.* (Paris, 1891). See also the numerous memoirs of the time, and the marquis de Ségur's *Au couchant de la monarchie, Louis XVI. et Turgot* (1910).

For bibliographies see G. Monod, *Bibl. de la France*; Lavisse et Rambaud, *Hist. Univ.*, vols. vii. and viii.; and the *Cambridge Modem History*, vol. viii.

(R. A.*)

1 The responsibility of Marie Antoinette for the policy of the king before and during the Revolution has been the subject of much controversy. In general it may be said that her influence on politics has been much exaggerated. (See Marie Antoinette.) [Ed.]

LOUIS XVII.

(1785-1795?), titular king of France, second son of Louis XVI. and Marie Antoinette, was born at Versailles on the 27th of March 1785, was christened the same day Louis Charles, and given the title of duke of Normandy. Louis Charles became dauphin on the death of his elder brother on the 4th of June 1789. It is only with his incarceration in the Temple on the 13th of August 1792, that his history, apart from that of his parents, becomes of interest. The royal party included, beside the king and queen, their daughter Marie Thérèse Charlotte (Madame Royale), the king's sister Madame Élisabeth, the valet Cléry and others. The prisoners were lodged at first in the smaller Tower, but were removed to the larger Tower on the 27th of October. Louis Charles was then separated from his mother and aunt to be put in his father's charge, except for a few hours daily, but was restored to the women when Louis was isolated from his family at the beginning of his trial in December.

On the 21st of January 1793 Louis became, for the royalists, king of France, and a week later the comte de Provence arrogated to himself the title of regent. From that moment began new plots for the escape of the prisoners from the Temple, the chief of which were engineered by the Chevalier de Jarjayes,[1] the baron de Batz,[2] and the faithful Lady Atkyns.[3] On the 3rd of July the little dauphin was again separated from his mother, this time to be given into the keeping of the cobbler Antoine Simon[4] who had been named his guardian by the Committee of General Security. The tales told by the royalist writers of the barbarous cruelty inflicted by Simon and his wife on the child are not proven. Marie Jeanne, in fact, took great care of the child's person, and there is documentary evidence to prove that he had air and food. But the Simons were obviously grotesquely unfit guardians for a prince, and they doubtless caused much suffering to the impressionable child, who was made on occasion to eat and drink to excess, and learnt the language of the gutter. But the scenes related by A. de Beauchesne of the physical martyrdom of the child are not supported by any other testimony, though he was at this time seen by a great number of people. On the 6th of October Pache, Chaumette, Hébert and others visited him and secured from him admissions of infamous accusations against his mother, with his signature to a list of her alleged crimes since her entry in the Temple, and next day he was confronted with his sister Marie Thérèse for the last time.

Simon's wife now fell ill, and on the 19th of January 1794 the Simons left the Temple, after securing a receipt for the safe transfer of their prisoner, who was declared to be in good health. A large part of the Temple records from that time onwards were destroyed under the Restoration, so that exact knowledge of the facts is practically impossible. Two days after the departure of the Simons the prisoner is said by the Restoration historians to have been put in a dark room which was barricaded like the cage of a wild animal. The story runs that food was passed through the bars to the child, who survived in spite of the accumulated filth of his surroundings. Robespierre[5] visited Marie Thérèse on the 11th of May, but no one, according to the legend, entered the dauphin's room for six months until Barras visited the prison after the 9th Thermidor (July 27, 1794). Barras's account of the visit describes the child as suffering from extreme neglect, but conveys no idea of the alleged walling in. It is nevertheless certain that during the first half of 1794 he was very strictly secluded; he had no special guardian, but was under the charge of guards changed from day to day. The child made no complaint to Barras of his treatment, probably because he feared to do so. He was then cleansed and re-clothed, his room cleaned, and during the day he was visited by his new attendant, a creole and a compatriot of Joséphine de Beauharnais, named Jean Jacques Christophe Laurent (1770-1807), who had from the 8th of November onwards assistance for his charge from a man named Gomin. The child was now taken out to walk on the roof of the Tower. From about the time of Gomin's entrance the prisoner was inspected, not by delegates of the Commune, but by representatives of the civil committee of the 48 sections of Paris. The rare recurrence of the same inspectors would obviously facilitate fraud, if any such were intended. From the end of October onwards the child maintained an obstinate silence, explained by Laurent as a determination taken on the day he made his deposition against his mother. On the 19th of December 1794 he was visited by three commissioners from the Committee of General Security—J. B. Harmand de la Meuse, J. B. C. Mathieu and J. Reverchon—who extracted no word from him. On Laurent's retirement Étienne Lasne was appointed on the 31st of March 1795 to be the child's guardian. In May 1795 the prisoner was seriously ill, and a doctor, P. J. Desault, well acquainted with the dauphin, having visited him seven months earlier, was summoned. Desault died suddenly, not without suspicion of poison, on the 1st of June, and it was some days

before doctors Pelletan and Dumangin were called. Then it was announced that on the 8th Louis Charles died. Next day an autopsy was held at which it was stated that a child apparently about ten years of age, “which the commissioners told us was the late Louis Capet’s son,” had died of a scrofulous affection of long standing. He was buried on the 10th in the cemetery of Ste Marguerite, but no stone was erected to mark the spot.

The weak parts of this story are the sudden and unexplained departure of the Simons; the subsequent useless cruelty of treating the child like a wild beast and keeping him in a dark room practically out of sight (unless any doubt of his identity was possible), while his sister was in comparative comfort; the cause of death, declared to be of long standing, but in fact developed with such rapidity; the insufficient excuse provided for the child’s muteness under Gomin’s régime (he had answered Barras) and the irregularities in the formalities in attending the death and the funeral, when a simple identification of the body by Marie Thérèse would have prevented any question of resuscitated dauphins. Both Barras and Harmand de la Meuse are said to have given leave for the brother and sister to see each other, but the meeting was never permitted. The argument from the sudden disappearance of persons in a position to know something of the truth is of a less convincing character. It may be noted that the more famous of the persons alleged by partisans of subsequent pretenders to have been hustled out of the world for their connexion with the secret are the empress Joséphine, the due d’Enghien and the duc de Berri.

Immediately on the announcement of the dauphin’s death there arose a rumour that he had escaped. Simien-Despréaux, one of Louis XVIII.’s own authors, stated at a later period (1814) that Louis XVII. was living and that among the signatories of the treaty of April 13th were some who possessed proofs of his existence; and Eckard, one of the mainstays of the official account, left among his unpublished papers a statement that many members of “an assembly of our wise men” obstinately named Louis XVII. as the prince whom their wishes demanded. Unfortunately the removal of the child suited the plans of the comte de Provence (now Louis XVIII. for the *émigrés*) as well as it suited the revolutionary government, and no serious attempt was made by the royal family to ascertain the truth, though they paid none of the tributes to the memory of the dead king which might reasonably have been expected, had they been convinced of his death. Even his sister wore no mourning for him until she arrived at Vienna and saw that this was expected of her. In spite of the massive literature which has accumulated on the subject, neither his death in the Temple nor his escape therefrom has been definitely established, though a very strong presumption is established in favour of the latter.

Some forty candidates for his honours were forthcoming under the Restoration. The most important of these pretenders were Karl Wilhelm Naundorff and the comte de Richemont. Naundorff’s story rested on a series of complicated intrigues. According to him Barras determined to save the dauphin in order to please Joséphine Beauharnais, the future empress, having conceived the idea of using the dauphin’s existence as a means of dominating the comte de Provence in the event of a restoration. The dauphin was concealed in the fourth storey of the Tower, a wooden figure being substituted for him. Laurent, to protect himself from the consequences of the substitution, replaced the wooden figure by a deaf mute, who was presently exchanged for the scrofulous child of the death certificate. The deaf mute was also concealed in the Temple. It was not the dead child, but the dauphin who left the prison in the coffin, whence he was extracted by his friends on the way to the cemetery. Richemont’s tale that the woman Simon, who was genuinely attached to him, smuggled him out in a basket, is simple and more credible, and does not necessarily invalidate the story of the subsequent operations with the deaf mute and the scrofulous patient, Laurent in that case being deceived from the beginning, but it renders them extremely unlikely. A third pretender, Eleazar Williams, did not affect to know anything of his escape. He possessed, he said, no consciousness of his early years, only emerging from idiocy at the age of thirteen, when he was living with an Indian family in New York State. He was a missionary to the Indians when the prince de Joinville, son of Louis Philippe, met him, and after some conversation asked him to sign a document abdicating his rights in favour of Louis Philippe, in return for which he, the dauphin (alias Eleazar Williams), was to receive the private inheritance which was his. This Eleazar refused to do. The wildness of this tale refutes itself.

Richemont (Henri Ethelbert Louis Victor Hébert) was in prison in Milan for seven years and began to put forward his claims in Paris in 1828. In 1833 he was again arrested, was brought to trial in the following year and was condemned to twelve years’ imprisonment. He escaped after a few months and left the country, to return in 1840. He died at Gleize on the 10th of August 1853, the name of Louis Charles de France being inscribed on his tomb until the government ordered its removal.

Naundorff, or Naündorff, who had arrived from nowhere in Berlin in 1810, with papers giving the name Karl Wilhelm Naundorff, in order to escape the persecutions of which he declared himself the object, settled at Spandau in 1812 as a clockmaker, and married in 1818 Johanna Einert. In 1822 he removed to Brandenburg, and in 1828 to Crossen, near Frankfort. He was imprisoned from 1825 to 1828 for coining, though apparently on insufficient evidence, and in 1833 came to push his claims in Paris, where he was recognized as the dauphin by many persons formerly connected with the court of Louis XVI. Expelled from France in 1836, the day after bringing a suit against the duchess of Angoulême for the restitution of the dauphin’s private property, he lived in exile till his death at Delft on the 10th of August 1845, and his tomb was inscribed “Louis XVII., roi de France et de Navarre (Charles Louis, duc de Normandie).” The Dutch authorities who had inscribed on his death certificate the name of Charles Louis de Bourbon, duc de Normandie (Louis XVII.) permitted his son to bear the name de Bourbon, and when the family appealed in 1850-1851, and again in 1874, for the restitution of their civil rights as heirs of Louis XVI. no less an advocate than Jules Favre pleaded their cause. Of all the pretenders Naundorff has the best case. He was certainly not the Jew of Prussian Poland which his enemies declared him to be, and he has to this day a circle of devoted adherents. Since he was sincerely convinced of his own rights, it is surprising that he put forward no claim in 1814.

If the dauphin did escape, it seems probable that he perished shortly afterwards or lived in a safe obscurity. The account of the substitution in the Temple is well substantiated, even to the names of the substitutes. The curious imbroglio deceived royalists and republicans alike. Lady Atkyns was trying by every possible means to get the dauphin out of his prison when he was apparently already in safe hands, if not outside the Temple walls. A child was in fact delivered to her agents, but he was a deaf mute. That there was fraud, and complicated fraud, in the guardians of the dauphin may be taken as proved by a succession of writers from 1850 onwards, and more recently by Frédéric Barbey, who wisely attempts no ultimate solution. When the partisans of Richemont or Naundorff come to the post-Temple careers of their heroes, they become in most cases so uncritical as to be unconvincing.

The official version of the dauphin’s history as accepted under the Restoration was drawn up by Simien Despréaux in his uncritical *Louis XVII.* (1817), and is found, fortified by documents, in M. Eckard’s *Mémoires historiques sur Louis XVII.* (1817) and in A. de Beauchesne’s *Louis XVII., sa vie, son agonie, sa mort. Captivité de la famille royale au Temple* (2 vols., 1852, and many subsequent editions), containing copies of original documents, and essential to the study of the question, although its sentimental pictures of the boy martyr can no longer be accepted. L. de la Sicotière, “Les faux Louis XVII.,” in *Revue des questions historiques* (vol. xxxii., 1882), deals with the pretenders Jean Marie Hervagault, Mathurin Bruneau and the rest; see also Dr Cabanes, *Les Morts mystérieuses de l’histoire* (1901), and revised catalogue of the J. Sanford Saltus collection of Louis XVII. books (New York, 1908). Catherine Welch, in *The Little Dauphin* (1908) gives a résumé of the various sides of the question.

Madame Royale’s own account of the captivity of the Temple was first printed with additions and suppressions in 1817, and often subsequently, the best edition being that from her autograph text by G. Lenôtre, *La Fille de Louis XVI., Marie Thérèse Charlotte de France, duchesse d’Angoulême, le Temple, l’échange, l’exil* (1907). There are two collections of writings on the subject: *Marie Thérèse de France*, compiled (1852) by the marquis de Pastoret, and comprising beside the memoir written by Marie Thérèse herself, articles by M. de Montbel, Sainte-Beuve, J. Lemoine, La Guéronnière and extracts from Joseph Weber’s memoirs; and *Mémoires de Marie Thérèse duchesse d’Angoulême*, comprising extracts from the narratives of Charles Goret (*Mon Témoignage*, 1852), of C. F. Beaulieu (*Mémoire adressée à la nation*, 1795), of L. G. Michaud (*Opinion d’un Français*,

1795) and of Mme de Tourzel (*Mémoires* 1883). Cf. A. Lanne, *La Sœur de Louis XVII.*, and the articles on "Madame Royale," on the "Captivité de la famille royale au Temple" and on the "Mise en liberté de Madame" in M. Tourneux's *Bibliographie de l'histoire de Paris pendant la révolution française* (vol. iv., 1906, and vol. i., 1890).

Naündorff.—For the case of Naündorff see his own narrative, *Abrégé de l'histoire des infortunes du Dauphin* (London, 1836; Eng. trans., 1838); also Modeste Gruau de la Barre, *Intrigues dévoilées ou Louis XVII.* ... (3 vols., Rotterdam, 1846-1848); O. Friedrichs, *Correspondance intime et inédite de Louis XVII.* (Naündorff) 1834-1838 (2 vols., 1904); *Plaidoirie de Jules Favre devant la cour d'appel de Paris pour les héritiers de feu Charles-Guillaume Naündorff* (1874); H. Provins, *Le Dernier roi légitime de France* (2 vols., the first of which consists of destructive criticism of Beauchesne and his followers, 1889); A. Lanne, "Louis XVII. et le secret de la Révolution," *Bulletin mensuel* (1893 et seq.) of the Société des études sur la question Louis XVII., also *La Légitimité* (Bordeaux, Toulouse, 1883-1898). See further the article "Naündorff" in M. Tourneux, *Bibl. de la ville de Paris pendant la Révolution*, vol. iv. (1906).

Williams.—J. H. Hanson, *The Lost Prince: Facts tending to prove the Identity of Louis XVII. of France and the Rev. Eleazer Williams* (London and New York, 1854).

De Richemont.—Mémoires du duc de Normandie, fils de Louis XVI., écrits et publiés par lui-même (Paris, 1831), compiled, according to Quérard, by E. T. Bourg, called Saint Edme; Morin de Guérivière, *Quelques souvenirs* ... (Paris, 1832); and J. Suvigny, *La Restauration convaincue ... ou preuves de l'existence du fils de Louis XVI.* (Paris, 1851).

The widespread interest taken in Louis XVII. is shown by the fact that since 1905 a monthly periodical has appeared in Paris on this subject, entitled *Revue historique de la question Louis XVII.*, also by the promised examination of the subject by the Société d'Histoire contemporaine.

(M. Br.)

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1 F. A. Regnier de Jarjayes (1745-1822). See P. Gaulot, *Un Complot sous la Terreur*.

2 Jean, baron de Batz (1761-1822), attempted to carry off the dauphin in 1794. See G. Lenôtre, *Un Conspirateur royaliste pendant la Terreur, le baron de Batz* (1896).

3 Charlotte Walpole (*c.* 1785-1836), an English actress who married in 1779 Sir Edward Atkyns, and spent most of her life in France. She expended large sums in trying to secure the escape of the prisoners of the Temple. See F. Barbey, *A Friend of Marie Antoinette* (Eng. ed. 1906).

4 Antoine Simon (1736-1794) married Marie Jeanne Aladame, and belonged to the section of the Cordeliers. They owed their position to Anaxagoras Chaumette, procureur of the Commune, and to the fact that Simon had prevented one of the attempts of the baron de Batz. Simon was sent to the guillotine with Robespierre in 1794, and two years later Marie Jeanne entered a hospital for incurables in the rue de Sèvres, where she constantly affirmed the dauphin's escape. She was secretly visited after the Restoration by the duchess of Angoulême. On the 16th of November 1816, she was interrogated by the police, who frightened her into silence about the supposed substitution of another child for the dauphin. She died in 1819. See G. Lenôtre, *Vieilles maisons, vieux papiers* (2nd series, 1903).

5 In a bulletin dated May 17-24, Paris, and enclosed by Francis Drake (June 17, 1794) at Milan to Lord Grenville, it is stated (Hist. MSS. Comm. Fortescue Papers at Dropmore, vol. ii. 576-577) that Robespierre in the night of 23-24 May fetched the king (the dauphin) from the Temple and took him to Meudon. "The fact is certain, although only known to the Committee of Public Safety. It is said to be ascertained that he was brought back to the Temple the night of 24-25th, and that this was a test to assure the ease of seizing him." This police report at least serves to show the kind of rumour then current.

LOUIS XVIII. (Louis le Désiré) (1755-1824).

Louis-Stanislas-Xavier, comte de Provence, third son of the dauphin Louis, son of Louis XV., and of Maria Josepha of Saxony, was born at Versailles on the 17th of November 1755. His education was supervised by the devout duc de la Vauguyon, but his own taste was for the writings of Voltaire and the encyclopaedists. On the 14th of May 1771 took place his marriage with Louise-Marie-Joséphine of Savoy, by whom he had no children. His position at court was uncomfortable, for though ambitious and conscious of possessing greater abilities than his brother (Louis XVI.), his scope for action was restricted; he consequently devoted his energies largely to intrigue, especially against Marie Antoinette, whom he hated.[1] During the long absence of heirs to Louis XVI., "Monsieur," as heir to the throne, courted popularity and took an active part in politics, but the birth of a dauphin (1781) was a blow to his ambitions.[2] He opposed the revival of the *parlements*, wrote a number of political pamphlets,[3] and at the Assembly of Notables presided, like the other princes of the blood, over a bureau, to which was given the name of the *Comité des sages*; he also advocated the double representation of the *tiers*. At the same time he cultivated literature, entertaining poets and writers both at the Luxembourg and at his château of Brunoy (see Dubois-Corneau, *Le Comte de Provence à Brunoy*, 1909), and gaining a reputation for wit by his verses and *mots* in the salon of the charming and witty comtesse de Balbi, one of Madame's ladies, who had become his mistress,[4] and till 1793 exerted considerable influence over him. He did not emigrate after the taking of the Bastille, but, possibly from motives of ambition, remained in Paris. Mirabeau thought at one time of making him chief minister in his projected constitutional government (see *Corr. de Mirabeau et La Marck*, ed. Bacourt, i. 434, 436, 442), but was disappointed by his caution and timidity. The *affaire Favras* (Dec. 1789) aroused great feeling against Monsieur, who was believed by many to have conspired with Favras, only to abandon him (see Lafayette's *Mems.* and *Corr. of Mirabeau*). In June 1791, at the time of the flight to Varennes, Monsieur also fled by a different route, and, in company with the comte d'Avaray[5]—who subsequently replaced Mme de Balbi as his confidant, and largely influenced his policy during the emigration—succeeded in reaching Brussels, where he joined the comte d'Artois and proceeded to Coblenz, which now became the headquarters of the emigration.

Here, living in royal state, he put himself at the head of the counter-revolutionary movement, appointing ambassadors, soliciting the aid of the European sovereigns, and especially of Catherine II. of Russia. Out of touch with affairs in France and surrounded by violent anti-revolutionists, headed by Calonne and the comte d'Artois, he followed an entirely selfish policy, flouting the National Assembly (see his reply to the summons of the National Assembly, in Daudet, *op. cit.* i. 96), issuing uncompromising manifestoes (Sept. 1791, Aug. 1792, &c.), and obstructing in every way the representatives of the king and queen.[6] After Valmy he had to retire to Hamm in Westphalia, where, on the death of Louis XVI., he proclaimed himself regent; from here he went south, with the idea of encouraging the royalist feeling in the south of France, and settled at Verona, where on the death of Louis XVII. (8th of June 1795) he took the title of Louis XVIII. At this time ended his *liaison* with Mme de Balbi, and the influence of d'Avaray reached its height. From this time onward his life is a record of constant wanderings, negotiations and conspiracies. In April 1796 he joined Condé's army on the German frontier, but was shortly requested to leave the country, and accepted the hospitality of the duke of Brunswick at Blanckenberg till 1797, when, this refuge being no longer open to him, the emperor Paul I. permitted him to settle at Mittau in Courland, where he stayed till 1801. All this time he was in close communication with the royalists in France, but was much embarrassed by the conflicting policy pursued by the comte d'Artois from England, and was largely at the mercy of corrupt and dishonest agents.[7] At Mittau was realized his cherished plan of marrying Madame Royale, daughter of Louis XVI., to the duc d'Angoulême, elder son of the comte d'Artois. From Mittau, too, was sent his well-known letter to Bonaparte (1799) calling upon him to play the part of Monk, a proposal contemptuously refused (E. Daudet, *Hist. de l'émigration*, ii. 371, 436), though Louis in turn declined to accept a pension from

Bonaparte, and later, in 1803, though his fortunes were at their lowest ebb, refused to abdicate at his suggestion and accept an indemnity.

Suddenly expelled from Mittau in 1801 by the capricious Paul I., Louis made his way, in the depth of winter, to Warsaw, where he stayed for three years. All this time he was trying to convert France to the royalist cause, and had a "*conseil royal*" in Paris, founded at the end of 1799 by Royer-Collard, Montesquiou and Clermont-Gallerande, the actions of which were much impeded by the activity of the rival committee of the comte d'Artois (see E. Daudet, *op. cit.* ii., and Remâcle, *Bonaparte et les Bourbons*, Paris, 1899), but after 1800, and still more after the failure of the royalist conspiracy of Cadoudal, Pichegru and Moreau, followed by the execution of the duc d'Enghien (March 1804), and the assumption by Napoleon of the title of emperor (May 1804), the royalist cause appeared quite hopeless. In September 1804 Louis met the comte d'Artois at Calmar in Sweden, and they issued a protest against Napoleon's action, but being warned that he must not return to Poland, he gained permission from Alexander I. again to retire to Mittau. After Tilsit, however (1807), he was again forced to depart, and took refuge in England, where he stayed first at Gosfield in Essex, and afterwards (1809 onwards) at Hartwell in Buckinghamshire. In 1810 his wife died, and in 1811 d'Avaray died, his place as favourite being taken by the comte de Blacas.[8] After Napoleon's defeats in 1813 the hopes of the royalists revived, and Louis issued a fresh manifesto, in which he promised to recognize the results of the Revolution. Negotiations were also opened with Bernadotte, who seemed willing to support his cause, but was really playing for his own hand. 48

In March 1814 the Allies entered Paris, and thanks to Talleyrand's negotiations the restoration of the Bourbons was effected, Louis XVIII. entering Paris on the 2nd of May 1814, after issuing the declaration of St Ouen, in which he promised to grant the nation a constitution (*octroyer une charte*). He was now nearly sixty, wearied by adversity, and a sufferer from gout and obesity. But though clear-sighted, widely read and a good diplomatist, his impressionable and sentimental nature made him too subject to personal and family influences. His concessions to the reactionary and clerical party of the *émigrés*, headed by the comte d'Artois and the duchesse d'Angoulême, aroused suspicions of his loyalty to the constitution, the creation of his *Maison militaire* alienated the army, and the constant presence of Blacas made the formation of a united ministry impossible. After the Hundred Days, during which the king was forced to flee to Ghent, the dismissal of Blacas was made one of the conditions of his second restoration. On the 8th of July he again entered Paris, "in the baggage train of the allied armies," as his enemies said, but in spite of this was received with the greatest enthusiasm[9] by a people weary of wars and looking for constitutional government. He was forced to retain Talleyrand and Fouché in his first ministry, but took the first opportunity of ridding himself of them when the elections of 1815 assured him of a strong royalist majority in the chamber (the *chambre introuvable*, a name given it by Louis himself). At this time he came into contact with the young comte (afterwards duc) Decazes, prefect of the police under Fouché, and minister of police in Richelieu's ministry, who now became his favourite and gained his entire confidence (see E. Daudet, *Louis XVIII. et le duc Decazes*). Having obtained a ministry in which he could trust, having as members the duc de Richelieu and Decazes, the king now gave it his loyal support and did his best to shield his ministers from the attacks of the royal family. In September 1816, alarmed at the violence of the *chambre introuvable*, he was persuaded to dissolve it. An attempt on the part of the Ultras to regain their ascendancy over the king, by conniving at the sudden return of Blacas from Rome to Paris,[10] ended in failure.

The events and ministerial changes of Louis XVIII.'s reign are described under the article France: *History*, but it may be said here that the king's policy throughout was one of prudence and common sense. His position was more passive than active, and consisted in giving his support as far as possible to the ministry of the day. While Decazes was still in power, the king's policy to a large extent followed his, and was rather liberal and moderate, but after the assassination of the duc de Berry (1820), when he saw that Decazes could no longer carry on the government, he sorrowfully acquiesced in his departure, showered honours upon him, and transferred his support to Richelieu, the head of the new ministry. In the absence of Decazes a new favourite was found to amuse the king's old age, Madame du Cayla (Zoé Talon, comtesse du Cayla), a protégée of the vicomte Sosthène de la Rochefoucauld and consequently a creature of the Ultras. As the king became more and more infirm, his power of resistance to the intrigues of the Ultras became weaker. The birth of a posthumous son to the duc de Berry (Sept. 1820), the death of Napoleon (5th of May 1821) and the resignation of Richelieu left him entirely in their hands, and after Villèle had formed a ministry of a royalist character the comte d'Artois was associated with the government, which passed more and more out of the king's hands. He died on the 16th of September 1824, worn out in body, but still retaining flashes of his former clear insight and scepticism. The character of Louis XVIII. may be summed up in the words of Bonaparte, quoted by Sorel (*L'Europe et la Rév. fr.* viii. 416 footnote), "C'est Louis XVI. avec moins de franchise et plus d'esprit." He had all the Bourbon characteristics, especially their love of power, combined with a certain nobility of demeanour, and a consciousness of his dignity as king. But his nature was cold, unsympathetic and calculating, combined with a talent for intrigue, to which was added an excellent memory and a ready wit. An interesting judgment of him is contained in *Queen Victoria's Letters*, vol. i., in a letter of Leopold I., king of the Belgians, to the queen before her accession, dated the 18th of November 1836, "Poor Charles X. is dead.... History will state that Louis XVIII. was a most liberal monarch, reigning with great mildness and justice to his end, but that his brother, from his despotic and harsh disposition, upset all the other had done and lost the throne. Louis XVIII. was a clever, hard-hearted man, shackled by no principle, very proud and false. Charles X. an honest man, a kind friend," &c. &c. This seems fairly just as a personal estimate, though it does not do justice to their respective political rôles.

Bibliography.—There is no trustworthy or complete edition of the writings and correspondence of Louis XVIII. The *Mémoires de Louis XVIII. recueillis et mis en ordre par M. le duc de D. ...* (12 vols., Paris, 1832-1833) are compiled by Lamothe-Langon, a well-known compiler of more or less apocryphal memoirs. From the hand of Louis XVIII. are: *Relation d'un voyage à Bruxelles et à Coblentz*, 1791 (Paris, 1823, with dedication to d'Avaray); and *Journal de Marie-Thérèse de France, duchesse d'Angoulême, corrigé et annoté par Louis XVIII.*, ed. Imbert de St Amand (Paris, 1896). Some of his letters are contained in collections, such as *Lettres d'Artwell; correspondance politique et privée de Louis XVIII., roi de France* (Paris, 1830; letters addressed to d'Avaray); *Lettres et instructions de Louis XVIII. au comte de Saint-Priest*, ed. Barante (Paris, 1845); *Talleyrand et Louis XVIII., corr. pendant le congrès de Vienne, 1814-1815*, ed. Pallain (1881; trans., 2 vols., 1881); see also the corr. of Castlereagh, Metternich, J. de Maistre, the Wellington Dispatches, &c., and such collections as *Corr. diplomatique de Pozzo di Borgo avec le comte de Nesselrode* (2 vols., 1890-1897), the correspondence of C. de Rémusat, Villèle, &c. The works of E. Daudet are of the greatest importance, and based on original documents; the chief are: *La Terreur Blanche* (Paris, 1878); *Hist. de la restauration 1814-1830* (1882); *Louis XVIII. et le duc Decazes* (1899); *Hist. de l'émigration*, in three studies: (i.) *Les Bourbons et la Russie* (1886), (ii.) *Les Émigrés et la seconde coalition* (1886), (iii.) *Coblenz*, 1789-1793 (1890). Developed from these with the addition of much further material is his *Hist. de l'émigration* (3 vols., 1904-1907). Also based on original documents is E. Romberg and A. Malet, *Louis XVIII. et les cent-jours à Gand* (1898). See also G. Stenger, *Le Retour des Bourbons* (1908); Cte. L. de Remâcle, *Bonaparte et les Bourbons. Relations secrèts des agents du cte. de Provence sous le consulat* (Paris, 1899). For various episodes, see Vicomte de Reiset, *La Comtesse de Balbi* (Paris, 1908; contains a long bibliography, chiefly of memoirs concerning the emigration, and is based on documents); J. B. H. R. Capefigue, *La Comtesse du Cayla* (Paris, 1866); J. Turquan, *Les Favorites de Louis XVIII.* (Paris, 1900); see also the chief memoirs of the period, such as those of Talleyrand, Chateaubriand, Guizot, duc de Broglie, Villèle, Vitrolles, Pasquier, the comtesse de Boigne (ed. Nicoullaud, Paris, 1907), the Vicomte L. F. Sosthène de la Rochefoucauld (15 vols., Paris, 1861-1864); and the writings of Benjamin Constant, Chateaubriand, &c.

General Works.—See the histories of France, the Emigration, the Restoration and especially the very full bibliographies to chapters i., ii. and iii. of *Cambridge Modern History*, and Lavisse and Rambaud, *Hist. générale*, vol. x. 49

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1 See Arneth and Geffroy, *Corr. de Marie-Thérèse avec le comte de Mercy-Argenteau*, vol. i., "Mercy to Maria Theresa, June 22nd, 1771," also i. 261, ii. 186, 352, 393. Marie Antoinette says (ii. 393): "... à un caractère très faible, il joint une marche souterraine, et

quelquefois très basse."

2 See his letters to Gustavus III. of Sweden in A. Geffroy, *Gustave III et la cour de France*, vol. ii. appendix.

3 Two pamphlets at least are ascribed to him: "Les Mannequins, conte ou histoire, comme l'on voudra" (against Turgot; anon., Paris, 1776) and "Description historique d'un monstre symbolique pris vivant sur les bords du lac Fagua, près de Santa-Fé, par les soins de Francisco Xaveiro de Neunris" (against Calonne; Paris, 1784) (A. Debidour in *La Grande Encyclopédie*).

4 It has frequently been alleged that his relations with Mme de Balbi, and indeed with women generally, were of a platonic nature. De Reiset (*La Comtesse de Balbi*, pp. 152-161) produces evidence to disprove this assertion.

5 Antoine-Louis-François de Bésiade, comte, afterwards duc, d'Avaray. In spite of his loyalty and devotion, the effect of his influence on Louis XVIII. may be gathered from a letter of J. de Maistre to Blacas, quoted by E. Daudet, *Hist. de l'émigration*, ii. 11: "celui qui n'a pu dans aucun pays aborder aucun homme politique sans l'aliéner n'est pas fait pour les affaires."

6 See Klinckowström, *Le Comte de Fersen et la cour de France*. Fersen says (i. 7), "Monsieur ferait mieux seul, mais il est entièrement subjugué par l'autre" (*i.e.* the comte d'Artois, who was in turn under the influence of Calonne). See Daudet, *op. cit.* vol. i.

7 See E. Daudet, *La Conjuration de Pichegru* (Paris, 1901).

8 Pierre-Louis-Casimir, comte (afterwards duc) de Blacas d'Aulps, was as rigidly royalist as d'Avaray, but more able. E. Daudet, *Hist. de l'émigration*, i. 458, quotes a judgment of him by J. de Maistre: "Il est né homme d état et ambassadeur."

9 See account by Decazes in E. Daudet, *Louis XVIII. et le duc Decazes*, pp. 48-49, and an interesting "secret and confidential" letter of Castlereagh to Liverpool (July 8, 1815) in the unpublished Foreign Office records: "The king sent for the duke and me this evening to the Thuilleries.... We found him in a state of great emotion and exaltation at the reception he had met with from his subjects, which appears to have been even more animated than on his former entrance. Indeed, during the long audience to which we were admitted, it was almost impossible to converse, so loud were the shouts of the people in the Thuilleries Gardens, which were full, though it was then dark. Previous to the king's dismissing us, he carried the duke and me to the open window. Candles were then brought, which enabled the people to see the king with the duke by his side. They ran from all parts of the Gardens, and formed a solid mass of an immense extent, rending the air with acclamations. The town is very generally illuminated, and I understand from men who have traversed the principal streets that every demonstration of joy was manifested by the inhabitants."

10 It is as yet not proved that Blacas returned from his embassy in response to a summons from the Ultras. But whether it was on his own initiative or not, there can be no doubt as to the hopes which they built on his arrival (see Daudet, *Louis XVIII. et le duc Decazes*).

LOUIS I. (1326-1382), called "the great," king of Hungary and Poland, was the third son of Charles Robert, king of Hungary, and Elizabeth, daughter of the Polish king, Ladislaus Lokietek. In 1342 he succeeded his father as king of Hungary and was crowned at Székesfehérvár on the 21st of July with great enthusiasm. Though only sixteen he understood Latin, German and Italian as well as his mother tongue. He owed his relatively excellent education to the care of his mother, a woman of profound political sagacity, who was his chief counsellor in diplomatic affairs during the greater part of his long reign. Italian politics first occupied his attention. As a ruler of a rising great power in search of a seaboard he was the natural adversary of the Venetian republic, which already aimed at making the Adriatic a purely Venetian sea and resented the proximity of the Magyars in Dalmatia. The first trial of strength began in 1345, when the city of Zara placed herself under the protection of Hungary and was thereupon invested by the Venetians. Louis fought a battle beneath the walls of Zara (July 1st, 1346), which has been immortalized by Tintoretto, but was defeated and compelled to abandon the city to the republic. The struggle was renewed eleven years later when Louis, having formed, with infinite trouble, a league of all the enemies of Venice, including the emperor, the Habsburgs, Genoa and other Italian towns, attacked his maritime rival with such vigour that she sued for peace, and by the treaty of Zara (February 18th, 1358) ceded most of the Dalmatian towns and renounced the title of duke of Dalmatia and Croatia, hitherto borne by the doge. Far more important than the treaty itself was the consequent voluntary submission of the independent republic of Ragusa to the suzerainty of the crown of St Stephen the same year, Louis, in return for an annual tribute of 500 ducats and a fleet, undertaking to defend Ragusa against all her enemies. Still more glorious for Hungary was Louis's third war with Venice (1378-1381), when he was again aided by the Genoese. At an early stage of the contest Venice was so hardly pressed that she offered to do homage to Hungary for all her possessions. But her immense resources enabled her to rally her forces, and peace was finally concluded between all the powers concerned at the congress of Turin (1381), Venice virtually surrendering Dalmatia to Louis and undertaking to pay him an annual tribute of 7000 ducats. The persistent hostility of Venice is partially attributable to her constant fear lest Louis should inherit the crown of Naples and thus threaten her trade and her sea-power from two sides simultaneously. Louis's younger brother Andrew had wedded Joanna, granddaughter and heiress of old King Robert of Naples, on whose death, in 1343, she reigned in her own right, refused her consort any share in the government, and is very strongly suspected of having secured his removal by assassination on the night of the 19th of September 1345. She then married Prince Louis of Taranto, and strong in the double support of the papal court at Avignon and of the Venetian republic (both of whom were opposed to Magyar aggrandisement in Italy) questioned the right of Louis to the two Sicilies, which he claimed as the next heir of his murdered brother. In 1347, and again in 1350, Louis occupied Naples and craved permission to be crowned king, but the papal see was inexorable and he was compelled to withdraw. The matter was not decided till 1378 when Joanna, having made the mistake of recognizing the antipope Clement VII., was promptly deposed and excommunicated in favour of Prince Charles of Durazzo, who had been brought up at the Hungarian court. Louis, always inexhaustible in expedients, determined to indemnify himself in the north for his disappointments in the south. With the Habsburgs, Hungary's natural rivals in the west, Louis generally maintained friendly relations. From 1358 to 1368, however, the restless ambition of Rudolph, duke of Austria, who acquired Tirol and raised Vienna to the first rank among the cities of Europe, caused Louis great uneasiness. But Louis always preferred arbitration to war, and the peace congresses of Nagyszombat (1360) and of Pressburg (1360) summoned by him adjusted all the outstanding differences between the central European powers. Louis's diplomacy, moreover, was materially assisted by his lifelong alliance with his uncle, the childless Casimir the Great of Poland, who had appointed him his successor; and on Casimir's death Louis was solemnly crowned king of Poland at Cracow (Nov. 17, 1370). This personal union of the two countries was more glorious than profitable. Louis could give little attention to his unruly Polish subjects and was never very happy among them. Immovably entrenched behind their privileges, they rendered him only the minimum of service; but he compelled their representatives, assembled at Kassa, to recognize his daughter Maria and her affianced husband, Count Sigismund of Brandenburg, as their future king and queen by locking the gates of the city and allowing none to leave it till they had consented to his wishes (1374). Louis is the first European monarch who came into collision with the Turks. He seems to have arrested their triumphant career (*c.* 1372), and the fine church erected by him at Maria-Zell is a lasting memorial of his victories. From the first he took a just view of the Turkish peril, but the peculiar local and religious difficulties of the whole situation in the Balkans prevented him from dealing with it effectually (see HUNGARY, *History*). Louis died suddenly at Nagyszombat on the 10th of September 1382. He left two daughters Maria and Jadwiga (the latter he destined for the throne of Hungary) under the guardianship of his widow, the daughter of the valiant ban of Bosnia, Stephen Kotromaníc, whom he married in 1353, and who was in every way worthy of him.

See *Rationes Collectorum Pontif. in Hungaria, 1281-1375* (Budapest, 1887); Dano Gruber, *The Struggle of Louis I. with the Venetians for Dalmatia* (Croat.) (Agram, 1903); Antal Pór, *Life of Louis the Great* (Hung.) (Budapest, 1892); and *History of the*

Hungarian Nation (Hung.) (vol. 3, Budapest, 1895).

(R. N. B.)

LOUIS II. (1506-1526), king of Hungary and Bohemia, was the only son of Wladislaus II., king of Hungary and Bohemia, and the French princess Anne of Candale. Prematurely born at Buda on the 1st of July 1506, it required all the resources of medical science to keep the sickly child alive, yet he developed so precociously that at the age of thirteen he was well bearded and moustached, while at eighteen his hair was silvery white. His parts were good and he could speak and write six languages at a very early age, but the zeal of his guardians and tutors to make a man of him betimes nearly ruined his feeble constitution, while the riotous life led by him and his young consort, Maria of Austria, whom he wedded on the 13th of January 1522, speedily disqualified him for affairs, so that at last he became an object of ridicule at his own court. He was crowned king of Hungary on the 4th of June 1508, and king of Bohemia on the 11th of May 1509, and was declared of age when he succeeded his father on the 11th of December 1521. But during the greater part of his reign he was the puppet of the magnates and kept in such penury that he was often obliged to pawn his jewels to get proper food and clothing. His guardians, Cardinal Bakócz and Count George of Brandenburg-Anspach, shamefully neglected him, squandered the royal revenues and distracted the whole kingdom with their endless dissensions. Matters grew even worse on the death of Bakócz, when the magnates István Báthory, János Zapolya and István Verböczy fought each other furiously, and used the diets as their tools. Added to these troubles was the ever-present Turkish peril, which became acute after the king, with insensate levity, arrested the Ottoman envoy Berham in 1521 and refused to unite with Suleiman in a league against the Habsburgs. Nevertheless in the last extremity Louis showed more of manhood than any of his counsellors. It was he who restored something like order by intervening between the magnates and the gentry at the diet of 1525. It was he who collected in his camp at Tolna the army of 25,000 men which perished utterly on the fatal field of Mohács on the 29th of August 1526. He was drowned in the swollen stream of Csele on his flight from the field, being the second prince of the house of Jagiello who laid down his life for Hungary.

See *Rerum Hungaricarum libri* (vol. 2, ed. Ferencz Toldy, Budapest, 1867); and József Podhradczky, *King Louis* (Hung.) (Budapest, 1860).

(R. N. B.)

LOUIS, the name of three kings of Naples, members of the house of Anjou.

Louis I., duke of Anjou and count of Maine (1339-1384), was the second son of John II., king of France, and was born at Vincennes on the 23rd of July 1339. Having been given the duchy of Anjou in 1356 he led a wing of the French army at the battle of Poitiers and was sent to England as a hostage after the conclusion of the treaty of Brétigny in 1360, but he broke his parole in 1363 and so brought about King John's return into captivity. He took part in the war against England which was renewed in 1369, uniting the rival houses of Foix and Armagnac in the common cause, and in other ways rendering good service to his brother, King Charles V. Anjou's entrance into the troubled politics of Italy was one result of the papal schism which opened in 1378. Anxious to secure the support of France, the antipope Clement VII. persuaded the queen of Naples, Joanna I., to name Louis as her heir, and about the same time the death of Charles V. (September 1380) placed the duke in the position of regent of France. Neglecting France to prosecute his ambitions in Italy, he collected money and marched on Naples; but although helped by Amadeus VI., count of Savoy, he was unable to drive his rival, Charles, duke of Durazzo, from Naples. His army was destroyed by disease and Louis himself died at Biseglia, near Bari, on the 20th of September 1384, leaving two sons, his successor, Louis II., and Charles, duke of Calabria.

Louis II., duke of Anjou (1377-1417), born at Toulon on the 7th of October 1377, took up the struggle for Naples after his father's death and was crowned king by Clement VII. in 1389. After carrying on the contest for some years his enemies prevailed and he was compelled to take refuge in France, where he took part in the intestine strife which was desolating that kingdom. A few years later he made other attempts to secure the kingdom of Naples, which was now in the possession of Ladislas, a son of his father's foeman, Charles of Durazzo, and he gained a victory at Roccoserra in May 1411. Soon, however, he was again driven back to France, and after sharing anew in the civil wars of his country he died at Angers on the 29th of April 1417. His wife was Yolande, a daughter of John I., king of Aragon, and his son was his successor, Louis III.

Louis III., duke of Anjou (1403-1434), born on the 25th of September 1403, made in his turn an attempt to conquer Naples. This was in 1420, and he had met with considerable success in his task when he died at Cosenza on the 15th of November 1434. In 1424 Louis received from King Charles VII. the duchy of Touraine.

Another titular king of Naples of this name was Louis, a son of Philip, prince of Taranto. In 1346 he became the husband of Joanna I., queen of Naples, and in 1352 he was crowned king. After making an attempt to conquer Sicily he died on the 26th of May 1362.

LOUIS (893-911), surnamed the "Child," king of the Franks, son of the emperor Arnulf, was born at Ottingen, designated by Arnulf as his successor in Germany in 897, and crowned on the 4th of February 900. Although he never received the imperial crown, he is sometimes referred to as the emperor Louis IV. His chief adviser was Hatto I., archbishop of Mainz; and during his reign the kingdom was ravaged by Hungarians and torn with internal strife. He appears to have passed his time in journeys from place to place, and in 910 was the nominal leader of an expedition against the Hungarians which was defeated near Augsburg. Louis, who was the last of the German Carolingians, died in August or September 911 and was buried at Regensburg.

See Regino von Prüm, "Chronicon," in the *Monumenta Germaniae historica. Scriptores*, Band i. (Hanover and Berlin, 1826); E. Dümmler, *Geschichte des ostfränkischen Reichs* (Leipzig, 1887-1888); O. Dietrich, *Beiträge zur Geschichte Arnolfs von Kärnthen und Ludwigs des Kindes* (Berlin, 1890); and E. Mühlbacher, *Die Regesten des Kaiserreichs unter den Karolingern* (Innsbruck, 1881).

(A. W. H.*)

LOUIS OF NASSAU (1538-1574), son of William, count of Nassau, and Juliana von Stolberg, and younger brother of William the Silent, took an active part in the revolt of the Netherlands against Spanish domination. He was one of the leaders of the league of nobles who signed the document known as "the Compromise" in 1566, and a little later was a member of the deputation who presented the petition of grievances called "the Request" to the regent, Margaret of Parma. It was on this occasion that the appellation of "the Beggars" (*les Gueux*) was first given to the opponents of King Philip's policy. On the arrival of Alva at Brussels, Count Louis, with his brother William, withdrew from the Netherlands and raised a body of troops in defence of the patriot cause. In the spring of 1568 Louis invaded Friesland, and at Heiligerlee, on the 23rd of May, completely defeated a Spanish force under Count Aremberg, who was killed. Alva then advanced to meet the invaders with a large army, and at Jemmingen (July 21), with very slight loss, annihilated the levies of Louis, who himself escaped by swimming from the field across an estuary of the Ems. He now joined the army of his brother William, which had in October to beat a hasty retreat before Alva's superior skill. Then Louis, in company with his brothers William and Henry, made his way across the French frontier to the camp of the Huguenot leader, Admiral Coligny. Louis took an active part in the campaign and fought heroically at Jarnac and Moncontour. In 1572 Louis, not deterred by previous disaster, raised a small force in France, and, suddenly entering Hainaut, captured Mons (May 23). Here he was besieged by Don Frederick of Toledo, Alva's natural son, who blockaded all approach to the town. William made an attempt to relieve his brother, but failed, and Mons had to surrender (September 17). Louis, who was sick with fever, withdrew to his ancestral home, Dillenburg, to recruit his health, and then once more to devote his energies to the raising of money and troops for another invasion of the Netherlands. In the hope of drawing away the Spaniards from the siege of Leiden by a diversion in the south, Louis, with his brothers John and Henry, at the head of a force of mixed nationalities and little discipline, crossed the frontier near Maastricht, and advanced as far as the Mookerheide near Nijmwegen. Here he was attacked by a body of Spanish veterans under an experienced leader, Sancho d'Avila, and speedily routed. In the disorderly flight both Louis and his younger brother Henry, refusing to abandon the field, lost their lives. Their bodies were never recovered. Thus perished at the age of thirty-six one of the most chivalrous and gifted of a gallant band of brothers, four of whom laid down their lives in their country's cause.

See P. J. Blok, *Lodewijk von Nassau, 1538-1574* (The Hague, 1689), and the *Cambridge Modern History*, vol. iii. chs. vi. and vii., and bibliography (1904); also A. J. Van der Aa, *Biographisch woordenboek der Nederlanden* (22 vols., Haarlem, 1852-1878).

LOUIS, JOSEPH DOMINIQUE, Baron (1755-1837), French statesman and financier, was born at Toul (Meurthe) on the 13th of November 1755. At the outbreak of the Revolution the abbé Louis (he had early taken orders) had already some reputation as a financial expert. He was in favour of the constitutional movement, and on the great festival of federation (July 14, 1790) he assisted Talleyrand, then bishop of Autun, to celebrate mass at the altar erected in the Champ de Mars. In 1792, however, he emigrated to England, where he spent his time studying English institutions and especially the financial system of Pitt. Returning to France on the establishment of the Consulate he served successively in the ministry of war, the council of state, and in the finance department in Holland and in Paris. Made a baron of the empire in 1809 he nevertheless supported the Bourbon restoration and was minister of finance in 1814-1815. Baron Louis was deputy from 1815 to 1824 and from 1827 to 1832. He resumed the portfolio of finance in 1815, which he held also in the Decazes ministry of 1818; he was the first minister of finance under the government of Louis Philippe, and held the same portfolio in 1831-1832. In 1832 he was made a peer of France and he died on the 26th of August 1837.

LOUIS PHILIPPE I., king of the French (1773-1850), was the eldest son of Louis Philip Joseph, duke of Orleans (known during the Revolution as Philippe Egalité) and of Louise Marie Adelaide de Bourbon, daughter of the duc de Penthièvre, and was born at the Palais Royal in Paris on the 6th of October 1773. On his father's side he was descended from the brother of Louis XIV., on his mother's from the count of Toulouse, "legitimated" son of Louis XIV. and Madame de Montespan. The legend that he was a supposititious child, really the son of an Italian police constable named Chiapponi, is dealt with elsewhere (see Maria Stella, countess of Newborough). The god-parents of the duke of Valois, as he was entitled till 1785, were Louis XVI. and Queen Marie Antoinette; his governess was the famous Madame de Genlis, to whose influence he doubtless owed many of the qualities which later distinguished him: his wide, if superficial knowledge, his orderliness, and perhaps his parsimony. Known since 1785 as the duc de Chartres, he was sixteen at the outbreak of the Revolution, into which—like his father—he threw himself with ardour. In 1790 he joined the Jacobin Club, in which the moderate elements still predominated, and was assiduous in attendance at the debates of the National Assembly. He thus became a *persona grata* with the party in power; he was already a colonel of dragoons, and in 1792 he was given a command in the army of the North. As a lieutenant-general, at the age of eighteen, he was present at the cannonade of Valmy (Sept. 20) and played a conspicuous part in the victory of Jemappes (Nov. 6).

The republic had meanwhile been proclaimed, and the duc de Chartres, who like his father had taken the name of *Egalité*, posed as its zealous adherent. Fortunately for him, he was too young to be elected deputy to the Convention, and while his father was voting for the death of Louis XVI. he was serving under Dumouriez in Holland. He shared in the disastrous day of Neerwinden (March 18, 1793); was an accomplice of Dumouriez in the plot to march on Paris and overthrow the republic, and on the 5th of April escaped with him from the enraged soldiers into the Austrian lines. He was destined not to return to France for twenty years. He went first, with his sister Madame Adelaide, to Switzerland where he obtained a situation for a few months as professor in the college of Reichenau under an assumed name,[1] mainly in order to escape from the fury of the *émigrés*. The execution of his father in November 1793 had made him duke of Orleans, and he now became the centre of the intrigues of the Orleanist party. In 1795 he was at Hamburg with Dumouriez, who still hoped to make him king. With characteristic caution Louis Philippe refused to commit himself by any overt pretensions, and announced his intention of going to America; but in the hope that something might happen in France to his advantage, he postponed his departure, travelling instead through the Scandinavian countries as far north as Lapland. But in 1796, the Directory having offered to release his mother and his two brothers, who had been kept in prison since the Terror, on condition that he went to America,

he set sail for the United States, and in October settled in Philadelphia, where in February 1797 he was joined by his brothers the duc de Montpensier and the comte de Beaujolais. Two years were spent by them in travels in New England, the region of the Great Lakes, and of the Mississippi; then the news of the *coup d'état* of 18 Brumaire decided them to return to Europe. They returned in 1800, only to find Napoleon Bonaparte's power firmly established. Immediately on his arrival, in February 1800, the duke of Orleans, at the suggestion of Dumouriez, sought an interview with the comte d'Artois, through whose instrumentality he was reconciled with the exiled king Louis XVIII., who bestowed upon his brothers the order of the Saint Esprit. The duke, however, refused to join the army of Condé and to fight against France, an attitude in which he persisted throughout, while maintaining his loyalty to the king.[2] He settled with his brothers at Twickenham, near London, where he lived till 1807—for the most part in studious retirement.

On the 18th of May 1807 the duc de Montpensier died at Christchurch in Hampshire, where he had been taken for change of air, of consumption. The comte de Beaujolais was ill of the same disease and in 1808 the duke took him to Malta, where he died on the 29th of May. The duke now, in response to an invitation from King Ferdinand IV., visited Palermo where, on the 25th of November 1809 he married Princess Maria Amelia, the king's daughter. He remained in Sicily until the news of Napoleon's abdication recalled him to France. He was cordially received by Louis XVIII.; his military rank was confirmed, he was named colonel-general of hussars, and such of the vast Orleans estates as had not been sold were restored to him by royal ordinance. The object may have been, as M. Debidour suggests, to compromise him with the revolutionary parties and to bind him to the throne; but it is more probable that it was no more than an expression of the good will which the king had shown him ever since 1800. The immediate effect was to make him enormously rich, his wealth being increased by his natural aptitude for business until, after the death of his mother in 1821, his fortune was reckoned at some £8,000,000.

Meanwhile, in the heated atmosphere of the reaction, his sympathy with the Liberal opposition brought him again under suspicion. His attitude in the House of Peers in the autumn of 1815 cost him a two years' exile to Twickenham; he courted popularity by having his children educated *en bourgeois* at the public schools; and the Palais Royal became the rendezvous of all the leaders of that middle-class opinion by which he was ultimately to be raised to the throne.

His opportunity came with the revolution of 1830. During the three "July days" the duke kept himself discreetly in the background, retiring first to Neuilly, then to Raincy. Meanwhile, Thiers issued a proclamation pointing out that a Republic would embroil France with all Europe, while the duke of Orleans, who was "a prince devoted to the principles of the Revolution" and had "carried the tricolour under fire" would be a "citizen king" such as the country desired. This view was that of the rump of the chamber still sitting at the Palais Bourbon, and a deputation headed by Thiers and Laffitte waited upon the duke to invite him to place himself at the head of affairs. He returned with them to Paris on the 30th, and was elected by the deputies lieutenant-general of the realm. The next day, wrapped in a tricolour scarf and preceded by a drummer, he went on foot to the Hôtel de Ville—the headquarters of the republican party—where he was publicly embraced by Lafayette as a symbol that the republicans acknowledged the impossibility of realizing their own ideals and were prepared to accept a monarchy based on the popular will. Hitherto, in letters to Charles X., he had protested the loyalty of his intentions,[3] and the king now nominated him lieutenant-general and then, abdicating in favour of his grandson the comte de Chambord appointed him regent. On the 7th of August, however, the Chamber by a large majority declared Charles X. deposed, and proclaimed Louis Philippe "King of the French, by the grace of God and the will of the people."

The career of Louis Philippe as King of the French is dealt with elsewhere (see France: *History*). Here it must suffice to note something of his personal attitude towards affairs and the general effects which this produced. For the trappings of authority he cared little. To conciliate the revolutionary passion for equality he was content to veil his kingship for a while under a middle-class disguise. He erased the royal lilies from the panels of his carriages; and the Palais Royal, like the White House at Washington, stood open to all and sundry who cared to come and shake hands with the head of the state. This pose served to keep the democrats of the capital in a good temper, and so leave him free to consolidate the somewhat unstable foundation of his throne and to persuade his European fellow-sovereigns to acknowledge in him not a revolutionary but a conservative force. But when once his position at home and abroad had been established, it became increasingly clear that he possessed all the Bourbon tenaciousness of personal power. When a "party of Resistance" came into office with Casimir-Périer in March 1831, the speech from the throne proclaimed that "France has desired that the monarchy should become national, it does not desire that it should be powerless"; and the migration of the royal family to the Tuileries symbolized the right of the king not only to reign but to rule. Republican and Socialist agitation, culminating in a series of dangerous risings, strengthened the position of the king as defender of middle-class interest; and since the middle classes constituted the *pays légal* which alone was represented in Parliament, he came to regard his position as unassailable, especially after the suppression of the risings under Blanqui and Barbès in 1839. Little by little his policy, always supported by a majority in a house of representatives elected by a corrupt and narrow franchise, became more reactionary and purely dynastic. His position in France seeming to be unassailable, he sought to strengthen it in Europe by family alliances. The fact that his daughter Louise was the consort of Leopold I., king of the Belgians, had brought him into intimate and cordial relations with the English court, which did much to cement the *entente cordiale* with Great Britain. Broken in 1840 during the affair of Mehemet Ali (*q.v.*) the entente was patched up in 1841 by the Straits Convention and re-cemented by visits paid by Queen Victoria and Prince Albert to the Château d'Eu in 1843 and 1845 and of Louis Philippe to Windsor in 1844, only to be irretrievably wrecked by the affair of the "Spanish marriages," a deliberate attempt to revive the traditional Bourbon policy of French predominance in Spain. If in this matter Louis Philippe had seemed to sacrifice the international position of France to dynastic interests, his attempt to re-establish it by allying himself with the reactionary monarchies against the Liberals of Switzerland finally alienated from him the French Liberal opinion on which his authority was based. When, in February 1848, Paris rose against him, he found that he was practically isolated in France.

Charles X., after abdicating, had made a dignified exit from France, marching to the coast surrounded by the cavalry, infantry and artillery of his Guard. Louis Philippe was less happily situated. Escaping with the queen from the Tuileries by a back entrance, he made his way with her in disguise to Honfleur, where the royal couple found refuge in a gardener's cottage. They were ultimately smuggled out of the country by the British consul at Havre as Mr and Mrs Smith,[4] arriving at Newhaven "unprovided with anything but the clothes they wore." They settled at Claremont, placed at their disposal by Queen Victoria, under the *incognito* of count and countess of Neuilly. Here on the 26th of August 1850, Louis Philippe died.

The character of Louis Philippe is admirably traced by Queen Victoria in a memorandum of May 2, 1855, in which she compares him with Napoleon III. She speaks of his "vast knowledge upon all and every subject," and "his great activity of mind." He was, unlike Napoleon, "*thoroughly French* in character, possessing all the liveliness and talkativeness of that people." But she also speaks of the "tricks and over-reachings" practised by him, "who in great as well as in small things took a pleasure in being cleverer and more cunning than others, often when there was no advantage to be gained by it, and which was, unfortunately, strikingly displayed in the transactions connected with the Spanish marriages, which led to the king's downfall, and ruined him in the eyes of all Europe" (*Letters*, pop. ed., iii. 122).

Louis Philippe had eight children. His eldest son, the popular Ferdinand Philippe, duke of Orleans (b. 1810), who had married Princess Helena of Mecklenburg, was killed in a carriage accident on the 13th of July 1842, leaving two sons, the comte de Paris and the duc de Chartres. The other children were Louise, consort of Leopold I., king of the Belgians; Marie, who married Prince Alexander of Württemberg and died in 1839; Louis Charles, duc de Nemours; Clementine, married to the duke of Coburg-Kohary; François Ferdinand, prince de Joinville; Henri Eugène, duc d'Aumale (*q.v.*); Antoine Philippe, duc de Montpensier, who married the Infanta, younger sister of Queen Isabella of Spain.

Authorities.—F. A. Gruyer, *La Jeunesse du roi Louis-Philippe, d'après les pourtraits et des tableaux* (Paris, 1909), édition de luxe, with beautiful reproductions of portraits, miniatures, &c.; Marquis de Flers, *Louis-Philippe, vie anecdotique, 1773-1850*

(Paris, 1891); E. Daudet, *Hist. de l'émigration* (3 vols., Paris, 1886-1890). Of general works on Louis Philippe's reign may be mentioned Louis Blanc, *Hist. de Dix Ans, 1830-1840* (5 vols., Paris, 1841-1844), from the republican point of view; J. O. d'Haussonville, *Hist. de la politique extérieure de la monarchie de juillet, 1830-1848* (2 vols., Paris, 1850); V. de Nouvion, *Hist. de Louis-Philippe* (4 vols., Paris, 1857-1861); F. Guizot, *France under Louis Philippe, 1841-1847* (Eng. trans., 1865); Karl Hillebrand, *Geschichte Frankreichs von der Thronbesteigung Louis Philippes, 1830-1841* (2 vols., Gotha, 1877-1879); V. du Bled, *Hist. de la monarchie de juillet* (2 vols., Paris, 1887); P. Thureau-Dangin, *Hist. de la monarchie de juillet* (Paris, 1887, &c.); A. Malet, "La France sous la monarchie de juillet," in Lavisse and Rambaud's *Hist. Générale*, vol. x. ch. x. (Paris, 1898); G. Weill, *La France sous la monarchie de juillet* (Paris, 1902); Émile Bourgeois, "The Orleans Monarchy," ch. xv. of vol. x., and "The Fall of Constitutionalism in France," ch. ii. of vol. xi. of the *Cambridge Modern History* (Cambridge, 1907 and 1909). Further works will be found in the bibliographies attached by M. Bourgeois to his chapters (vol. x. p. 844, vol. xi. p. 874; the latter including works on the revolution of 1848 and the Second Republic). To the list of published correspondence and memoirs there mentioned may be added the *Chronique* of the duchesse de Dino (Paris, 1909).

Louis Philippe himself published the *Journal du duc de Chartres, 1790-1791; Mon Journal, événements de 1815* (2 vols., 1849); *Discours, allocutions et réponses de S. M. Louis-Philippe, 1830-1846*; and after his death was issued his *Correspondance, mémoire et discours inédits* (Paris, 1863).

(W. A. P.)

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1 As M. Chabaud de la Tour. He was examined as to his fitness before being appointed. Gruyer, p. 165.

2 This at least was his own claim and the *Orleanist* view. The matter became a question of partisan controversy, the legitimists asserting that he frequently offered to serve against France, but that his offers were contemptuously refused. A. Debidour in the article "Louis-Philippe" in *La Grande Encyclopédie* supports the latter view; but see Gruyer, *La Jeunesse*, and E. Daudet, "Une réconciliation de famille en 1800," in the *Revue des Deux Mondes*, Sept. 15, 1905, p. 301. M. Daudet gives the account of the interview left by the comte d'Artois, and he also makes it clear that Louis Philippe, while protesting his loyalty to the head of his house, did not disguise his opinion that a Restoration would only be possible if the king accepted the essential changes made by the Revolution.

3 To say that these protestations were hypocritical is to assume too much. Personal ambition doubtless played a part; but he must have soon realized that the French people had wearied of "legitimism" and that a regency in the circumstances was impossible.

4 There is a vivid account in Mr Featherstonhaugh to Lord Palmerston, Havre, March 3, 1848, in *The Letters of Queen Victoria* (pop. ed., ii. 156).

LOUISBURG, a town and port of entry of Cape Breton county, Nova Scotia, Canada, on the Sydney & Louisburg railway, 39 m. from Sydney. Pop. (1901) 1588. Under the French *régime*, Louisburg was second only to Quebec. A fortress was erected at enormous expense, and the city was the centre of the cod-fisheries. The fortress was, however, captured in 1745 by the American colonists, under Sir William Pepperrell (1696-1759), assisted by the British fleet, and again in 1758 by a British land and sea force under General Jeffrey Amherst (1717-1797) and Admiral Boscawen. The jealousy of the British settlement of Halifax led to its almost utter destruction, and only a few case-mates now remain. Under English rule a fishing village grew up on the other side of the harbour, and has now become the winter shipping port of the Dominion Coal Company. The harbour is deep, spacious and open all the year round, though occasionally blocked by drift ice in the spring.

LOUISE [Auguste Wilhelmine Amalie Luise] (1776-1810), queen of Prussia, was born on the 10th of March 1776 in Hanover, where her father, Prince Charles of Mecklenburg-Strelitz, was field-marshal of the household brigade. Her mother was a princess of Hesse-Darmstadt. In 1793 Louise met at Frankfort the crown prince of Prussia, afterwards King Frederick William III., who was so fascinated by her beauty, and by the nobleness of her character, that he asked her to become his wife. They were married on the 24th of December of the same year. As queen of Prussia she commanded universal respect and affection, and nothing in Prussian history is more pathetic than the dignity and unflinching courage with which she bore the sufferings inflicted on her and her family during the war between Prussia and France. After the battle of Jena she went with her husband to Königsberg, and when the battles of Eylau and Friedland had placed Prussia absolutely at the mercy of France, she made a personal appeal to Napoleon at his headquarters in Tilsit, but without success. Early in 1808 she accompanied the king from Memel to Königsberg, whence, towards the end of the year, she visited St Petersburg, returning to Berlin on the 23rd of December 1809. During the war Napoleon attempted to destroy the queen's reputation, but the only effect of his charges in Prussia was to make her more deeply beloved. On the 19th of July 1810 she died in her husband's arms, while visiting her father in Strelitz. She was buried in the garden of the palace at Charlottenburg, where a mausoleum, containing a fine recumbent statue by Rauch, was built over her grave. In 1840 her husband was buried by her side. The Louise Foundation (Luisenstift) for the education of girls was established in her honour, and in 1814 Frederick William III. instituted the Order of Louise (Luisenorden). In 1880 a statue of Queen Louise was erected in the Thiergarten at Berlin.

See F. Adami, *Luise, Königin von Preussen* (7th ed., 1875); E. Engel, *Königin Luise* (1876); A. Kluckhohn, *Luise, Königin von Preussen* (1876); Mommsen and Treitschke, *Königin Luise* (1876); in English, Hudson, *Life and Times of Louisa, Queen of Prussia* (1874); G. Horn, *Das Buch von der Königin Luise* (Berlin, 1883); A. Lonke, *Königin Luise von Preussen* (Leipzig, 1903); H. von Petersdorff, "Königin Luise," *Frauenleben*, Bd. i. (Bielefeld, 1903, 2nd ed., 1904).

LOUISE OF SAVOY (1476-1531), duchess of Angoulême, mother of Francis I. of France, was daughter of a cadet of the house of Savoy, Philip, count of Bresse, afterwards duke of Savoy. Through her mother, Marguerite de Bourbon, she was niece of Pierre de Bourbon, sire de Beaujeu, afterwards duke of Bourbon. At the age of twelve she was married to Charles of Valois, count of Angoulême, great-grandson of King Charles V. The count died in 1496, leaving her the mother of two children, Marguerite (b. 1492) and Francis (b. 1494). The accession of Louis XII., who was childless, made Francis of Angoulême the heir-presumptive to the throne of France. Louise brought her children to the court, and received Amboise as her residence. She lived henceforth in fear lest Louis should have a son; and in consequence there was a secret rivalry

between her and the queen, Anne of Brittany. Finally, her son became king on the 1st of January 1515 by the death of Louis XII. From him Louise received the county of Angoulême, which was erected into a duchy, the duchy of Anjou, and the counties of Maine and Beaufort. She was then given the title of "Madame." From 1515 to her death, she took the chief share in the government. The part she played has been variously judged, and is not yet completely elucidated. It is certain that Louise had a clear head, practical good sense and tenacity. In the critical situation after the battle of Pavia (1525) she proved herself equal to the emergency, maintained order in the kingdom, and manœuvred very skilfully to detach Henry VIII. of England from the imperial alliance. But she appears to have been passionate, exceedingly rapacious and ever careful of her own interest. In her malignant disputes with the constable de Bourbon on the question of his wife's succession, she goaded him to extreme measures, and her rapacity showed itself also in her dealings with the *surintendant des finances*, J. de Beaune, baron de Samblançay (d. 1527), who diverted the money intended for the French soldiers in Italy into the coffers of the queen, and suffered death in consequence. She died in 1531, and Francis reunited to the crown her domains, which comprised the Bourbonnais, Beaujolais, Auvergne, la Marche, Angoumois, Maine and Anjou.

There is extant a *Journal* of Louise of Savoy, the authenticity of which seems certain. It consists of brief notes—generally very exact and sometimes ironical—which go as far as the year 1522. The only trustworthy text is that published by Guichenon in his *Histoire généalogique de la maison de Savoie* (ed. of 1778-1780, vol. iv.).

See *Poésies de François Ier et de Louise de Savoie ...*, ed. by Champollion-Figeac (1847); De Maulde, *Louise de Savoie et François Ier* (1895); G. Jacqueton, *La Politique extérieure de Louise de Savoie ...* (1892); H. Hauser, "Étude critique sur le Journal de Louise de Savoie," in the *Revue historique*, vol. 86 (1904).

LOUISIADE ARCHIPELAGO, a chain of islands in the Pacific Ocean, extending south-eastward from the easternmost promontory of New Guinea, and included in the Australian territory of Papua (British New Guinea). The islands number over eighty, and are interspersed with reefs. They are rich in tropical forest products, and gold has been discovered on the chief island, Tagula or South-east (area 380 sq. m.) and on Misima or St Aignan. The natives are of Papuan type, and practise cannibalism. The islands were probably observed by Torres in 1606, but were named by L. A. de Bougainville in 1768 after Louis XV.

LOUISIANA, one of the Southern States of the United States of America, lying on the N. coast of the Gulf of Mexico. Beginning on the N., its boundary follows eastward the parallel of 33° N., separating Louisiana from Arkansas; then descends the Mississippi river, separating it from the state of Mississippi, southward to 31°; passes eastward on this parallel to the Pearl river, still with the state of Mississippi on the E.; and descends this river to the Gulf. On the W. the Sabine river, from the Gulf to 32° N., and, thence to the parallel of 33°, a line a little W. of (and parallel to) the meridian of 94° W., separate Louisiana from Texas. Including islands in the Gulf, the stretch of latitude is approximately 4° and of longitude 5°. The total area is 48,506 sq. m., of which 3097 sq. m. are water surface (including 1060 sq. m. of landlocked coastal bays called "lakes"). The coast line is about 1500 m.

Physical Features.—Geologically Louisiana is a very recent creation, and belongs to the "Coastal Plain Province." Most of the rocks or soils composing its surface were formed as submarine deposits; the easternmost and southernmost parts are true river deposits. These facts are the key to the state's chorography. The average elevation of the state above the sea is only about 75 ft., and practically the only parts more than 400 ft. high are hills in Sabine, Claiborne and Vernon parishes. The physiographic features are few and very simple. The essential elements are five[1]: diluvial plains, coast marshes, prairies, "bluffs" and "pine-hills" (to use the local nomenclature). These were successive stages in the geologic process which has created, and is still actively modifying, the state. They are all seen, spread from N. to S., west of the Mississippi, and also, save only the prairies, in the so-called "Florida parishes" E. of the Mississippi.

These different elements in the region W. of the Mississippi are arranged from N. to S. in the order of decreasing geologic age and maturity. Beginning with elevations of about 400 ft. near the Arkansas line, there is a gentle slope toward the S.E. The northern part can best be regarded as a low plateau (once marine sediments) sloping southward, traversed by the large diluvial valleys of the Mississippi, Red and Ouachita rivers, and recut by smaller tributaries into smaller plateaus and rather uniform flat-topped hills. The "bluffs" (remnants of an eroded plain formed of alluvion deposits over an old, mature and drowned topography) run through the second tier of parishes W. of the Mississippi above the Red river. Below this river prairie areas become increasingly common, constituting the entire S.W. corner of the state. They are usually only 20 to 30 ft. above the sea in this district, never above 70, and are generally treeless except for marginal timber along the sluggish, meandering streams. One of their peculiar features—the sandy circular "mounds," 2 to 10 ft. high and 20 to 30 or even 50 ft. in diameter, sometimes surmounted by trees in the midst of a treeless plain and sometimes arranged in circles and on radii, and decreasing in size with distance from the centre of the field—has been variously explained. The mounds were probably formed by some gentle eruptive action like that exhibited in the "mud hills" along the Mississippi below New Orleans; but no explanation is generally accepted. The prairies shade off into the coast marshes. This fringe of wooded swamp and sea marsh is generally 20 to 30, but in places even 50 and 60 m. in width. Where the marsh is open and grassy, flooded only at high tides or in rainy seasons, and the ground firm enough to bear cattle, it is used as range. Considerable tracts have also been diked and reclaimed for cotton, sugar and especially for rice culture. The tidal action of the gulf is so slight and the marshes are so low that perfect drainage cannot be obtained through tide gates, which must therefore be supplemented by pumping machinery when rains are heavy or landward winds long prevail. Slight ridges along the streams and bayous which traverse it, and occasional patches of slightly elevated prairie, relieve in a measure the monotonous expanse. It is in and along the borders of this coast swamp region that most of the rice and much of the sugar cane of the state are grown. Long bar-like "islands" (conspicuous high land rising above the marsh and prairie)—Orange, Petite Anse, Grand Cote, Cote Blanche and Belle Isle—offer very interesting topographical and geological problems. "Trembling prairies"—land that trembles under the tread of men or cattle—are common near the coast. Most of the swamp fringe is reclaimable. The marshes encroach most upon the parishes of St Charles, Orleans and Plaquemines. In St Charles the cultivable strip of land along the river is only about 3 m. wide. In Orleans the city of New Orleans occupies nearly all the high ground and encroaches on the swamps. In Plaquemines there is practically no cultivable land below Forts Jackson and St Philip, and above there is only a narrow strip.

The alluvial lands include the river flood plains. The principal rivers are the Mississippi, which flows nearly 600 m. through and along the border of the state, the Red river, the Ouachita (or Washita), Sabine and Pearl; all except the last are navigable at all stages of the water. There are many "bayous," several of which are of great importance, both for navigation and for drainage. They may be characterized as secondary outlets of the rivers or flood distributaries. Among them are Bayou Teche, Bayou Plaquemine, Atchafalaya Bayou,[2] Bayou Lafourche and Bayou Bœuf. Almost all secondary water-courses, particularly if

they have sluggish currents, are known as bayous. Some might well be called lakes, and others rivers. The alluvial portion of the state, especially below the mouth of the Red river, is an intricate network of these bayous, which, before their closure by a levee system, served partially, in time of flood, to carry off the escaping surplus of river waters. They are comparatively inactive at all seasons; indeed, the action of the tides and back-waters and the tangle of vegetation in the sombre swamps and forests through which they run, often render their currents almost imperceptible at ordinary water. Navigable waters are said to penetrate all but four of the parishes of the state, their total length approximating 3800 m.

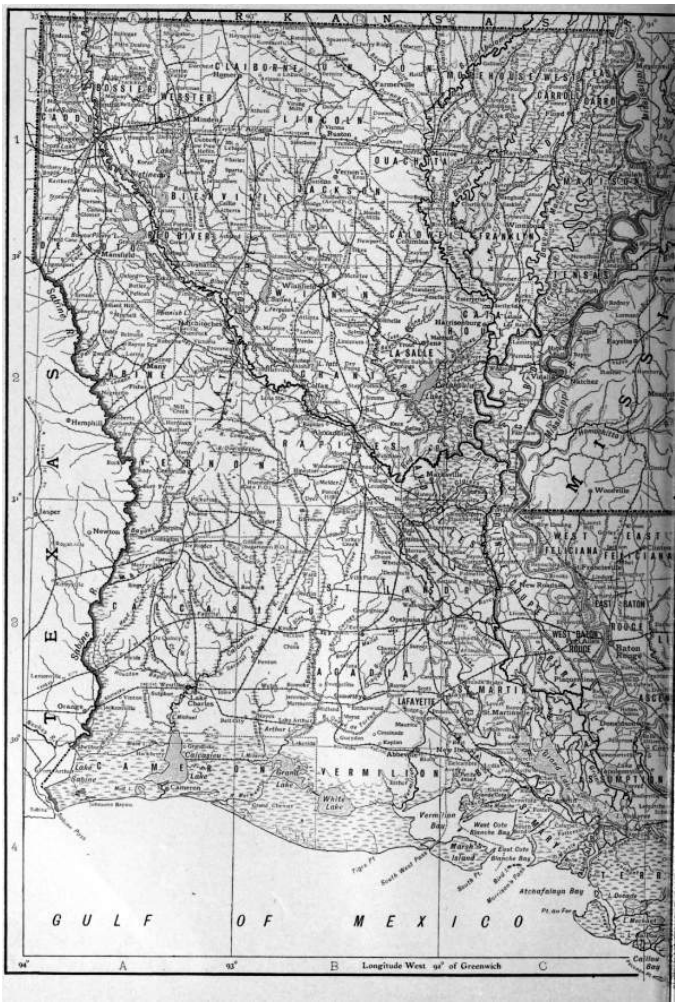
Each of the larger streams, as well as a large proportion of the smaller ones, is accompanied by a belt of bottom land, of greater or less width, lying low as regards the stream, and liable to overflow at times of high water. These flood plains form collectively what is known as the alluvial region, which extends in a broad belt down the Mississippi, from the mouth of the Ohio to the Gulf of Mexico, and up the Ouachita and its branches and the Red river to and beyond the limits of the state. Its breadth along the Mississippi within Louisiana ranges from 10 to 50 or 60 m., and that along the Red river and the Ouachita has an average breadth of 10 m. Through its great flood-plain the Mississippi river winds upon the summit of a ridge formed by its own deposits. In each direction the country falls away in a succession of minor undulations, the summits of the ridges being occupied by the streams and bayous. Nearly all of this vast flood-plain lies below the level of high water in the Mississippi, and, but for the protection afforded by the levees, every considerable rise of its waters would inundate vast areas of fertile and cultivated land. The low regions of Louisiana, including the alluvial lands and the coast swamps, comprise about 20,000 sq. m., or nearly one-half the area of the state. The remainder consists of the uplands of prairie and forest.

The alluvial region of the state in 1909 was mainly protected against overflow from the Mississippi river by 754 m. of levee on the Mississippi river within the state, and 84 m. on the Mississippi river, Cypress and Amos Bayou in Arkansas, forming part of the general system which extends through other states, 1000 m. up to the highlands about the junction of the Ohio river. The state and the national government co-operate in the construction and maintenance of this system, but the Federal government did not give material aid (the only exception being the grant of swamp lands in 1850) until the exceptionally disastrous flood in 1882. For about a century and a half before that time, levee building had been undertaken in a more or less spasmodic and tentative way, first by riparian proprietors, then by local combinations of public and private interests, and finally by the state, acting through levee districts, advised by a Board of Engineers. The Federal government, after its participation in the work, acted through a Board of Engineers, known as the “Mississippi River Commission.” The system of 754 m. of Mississippi river levees, within the state, was built almost entirely after 1866, and represents an expenditure of about $43,000,000 for primary construction alone; of this sum, the national government contributed probably a third (the state expended about $24,000,000 on levees before the Civil War). Some of the levees, especially those in swampy regions where outlet bayous are closed, are of extraordinary solidity and dimensions, being 20 to 40 ft. high, or even more, across streams or bayous—formerly outlets—with bases of 8 or 10 ft. to one of height. The task of maintenance consists almost entirely in closing the gaps which occur when the banks on which the levees are built cave into the river. Levee systems on some of the interior or tributary rivers, aggregating some 602 m., are exclusively built and maintained by the state. Louisiana also contributes largely to the 84 m. of levee in Arkansas, necessary to its security from overflow. The improvement of bayous, channels, the construction of canals and the drainage of swamp lands also contribute to the protection of the state.

The lakes are mainly in three classes. First come the coast lagoons, many of which are merely landlocked salt-water bays, the waters of which rise and fall with the tides. Of this class are Pontchartrain, Borgne, Maurepas and Sabine. These are simply parts of the sea which have escaped the filling-in process carried on by the great river and the lesser streams. A second class, called “ox-bow” lakes, large in numbers but small in area, includes ordinary cut-off meanders along the Mississippi and Red rivers. A third class, those upon the Red river and its branches, are caused mainly by the partial stoppage of the water above Shreveport by the “raft,” a mass of drift such as frequently gathers in western rivers, which for a distance of 45 m. almost completely closed the channel until it was broken up by government engineers. These lakes are much larger at flood season than at other times, and have been much reduced in size by the cutting of a channel through the raft. Lakes of this class are sometimes formed by the choking of the mouth of feeble tributaries by silt deposited by the Red river where the currents meet.

Mineral Resources.—Mineral resources are few, but important. In the Tertiary region are found small quantities of iron ore and an indifferent brown coal. The important mineral products are salt, sulphur, petroleum and natural gas. The deposit of rock salt on Petite Anse Island, in the coast swamp region, has been extensively worked since its discovery during the Civil War. The deposit is in places 1000 ft. thick, and yields salt of extraordinary purity (sometimes 99% pure). There are large deposits also on Orange Island (in places at least 1800 ft. thick), on Week’s Island, on Belle Isle and probably beneath the intervening marshes. In 1907 Louisiana ranked sixth among the salt-producing states of the country (after New York, Michigan, Ohio, Kansas and California), its output being valued at $226,892, only a few hundred dollars more than that of Texas. Near Lake Charles, at Sulphur, are very extraordinary sulphur deposits. The beds lie several (for the most part four to six) hundred feet underground and are of disputed origin. Many regard them as products of an extinct volcano; according to others they are of vegetable origin (they are found in conjunction with gypsum). They were discovered before 1870 by searchers after petroleum, but their exploitation remained in the experimental stage until about 1900. The sulphur is dissolved by superheated water forced down pipes, and the water with sulphur in solution is forced upward by hot air pressure through other pipes; the sulphur comes, 99% pure, to the surface of the ground, where it is cooled in immense bins, and then broken up and loaded directly upon cars for shipment. These mines divide with the Sicilian mines the control of the sulphur market of the world. The value of the sulphur taken from the mines of Louisiana in 1907 was a little more than $5,000,000. Evidences of petroleum were discovered long ago, in the very field where in recent years the Beaumont and Vinton wells were bored. In 1909 Jennings was the chief field in Louisiana, lesser fields being at Welsh, Anse la Butte, Caddo and Vinton. The Jennings field, one of the greatest in the United States, produced up to and including 1907 more than 26,000,000 barrels of high-grade oil, twelve-thirteenths of which came from an area of only 50 acres, one well producing a tenth of the entire output. In 1907 the state produced 5,000,221 barrels of petroleum, valued at $4,063,033. Natural gas is found in Caddo parish, about 20 m. N. of Shreveport. The depth of the wells is from 840 to 2150 ft.; two wells completed in 1907 had a daily capacity estimated at 35,000,000 to 50,000,000 ft. Shreveport, Oil City, Blanchard, Mooringsport, Bossier City and Texarkana are supplied with natural gas by pipe lines from this field. Kaolin is found in the state; in 1907 the total value of all clay products was $928,579.

Climate.—The climate is semi-tropical and exceptionally equable over large areas. In the S. and S.E. the equable temperature is largely the effect of the network of bays, bayous and lakes, and throughout the state the climate is materially influenced by the prevailing southerly winds from the Gulf of Mexico. Some daily variation in the temperature of adjoining localities is caused by a dark soil in the one and a light soil in the other, but the differences of mean annual temperature are almost wholly due to differences of latitude and elevation. The mean annual temperature for a period of nineteen years (Jan. 1888 to Dec. 1906) ranged from 70° F. at Port Eads, in the extreme S.E., to 65° F. at Lake Providence, in the N.E. The mean temperature of July, the hottest month, is comparatively uniform over the state, varying only from 81° to 83°; the mean for January, the coldest month, varies from 46° in the extreme north to 56° in the extreme south. Even in the coldest localities eight or nine months are wholly free from frost, and in the coast parishes frost occurs only a few days in each year. Rainfall is usually heavy in the S.E., but it decreases toward the N.W. As much as 85.6 in. have fallen within a year at New Orleans, but in this locality the average for a year is about 57.6 in.; at Shreveport the average is 46 in., and for the entire state it is 55 in. Much more rain falls in summer than in any other season, but in some parts the heaviest rainfall is in the spring and in others in the winter. A light fall of snow is not uncommon in the northern parishes, but in the southern part of the state snow falls not oftener than once in three to five years. Hailstorms are infrequent everywhere, but especially so in the south. Only a fourth to a half of the days of the different months are wholly or partly clear even in the north, and in the same district the monthly means of relative humidity vary from 65 to 70.



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Fauna.—The entire state is included within the Austro-riparian life zone; the higher portions fall within the Carolinian area and the lower portions, including the Gulf and the Mississippi embayment almost to the N.E. corner of the state, constitute a special semi-tropical region. The native fauna of the state resembles in its general features that of the other Gulf states. The feral fauna was once rather varied. Black bears, wolves and deer are not yet extinct, and more rarely a “wild cat” (lynx) or “panther” (puma) is seen in the swamps. Of smaller mammals, raccoons, squirrels and opossums are very common. Every bayou contains alligators; and reptiles of various species, such as turtles, lizards, horned toads, rattlesnakes and moccasins are abundant. Shrimps, frogs (of great commercial importance), terrapin, clams and oysters are common. Only in very recent years have oysters, though plentiful, become of competitive importance in the national market; they are greatly favoured by state protective legislation. In 1904 a state oyster commission was created to supplant the independent control by the parishes. An important boundary dispute with Mississippi arose over beds lying near the state line. The state leases the beds at a low annual rental in tracts (limited for each person, firm or corporation to 1000 acres), and draws from them a considerable revenue. The avifauna is varied and abundant, comprising eagles, vultures (protected by law), hawks, owls, pelicans, cranes, turkeys, geese, “partridges” (called quail or “Bob White” elsewhere), ducks, &c., besides numerous smaller species, many of which are brilliant of plumage but harsh of voice.

Flora.—Heavy rainfall, high temperature and fertile soil combine to cover the greater part of the state, and particularly the alluvial regions and the coast swamps, with a most luxuriant subtropical vegetation, both arborescent and herbaceous. Louisiana is justly celebrated for the beauty and fragrance of its flowers. The range of temperature is not sufficient to give the variety of annual wild flowers of more northern climates; nevertheless flowers cover the bottom lands and uplands in great profusion. The upland flora is the more diversified. Flowering annuals are mainly aquatic. Water lilies, water hyacinths, which are an obstruction in many streams, and irises in rich variety give colour to the coast wastes and sombre bayous. Notable among the flora are roses, japonicas, hibiscus shrubs of various species, poinsettias, tea olives, crepe myrtle, jasmines, magnolias, camellias, oleanders, chrysanthemums, geraniums and plumbagos. The value and variety of the timber are very great. Much of the river swamp region is covered with cypress trees festooned with Spanish moss. The most common species in the alluvial regions and, to a less degree, in the drier portions of the swamps and in the stream bottoms of the prairies are various oaks, black, sweet and tupelo gum, holly, cotton-wood, poplar, magnolia sweet bay, the tulip tree, catalpa, black walnut, pecans, hickories, ash, beech and short-leaf pine. On drier and higher soils are the persimmon, sassafras, red maple, elm, black haw, hawthorn, various oaks (in all 10 species occur), hickories and splendid forests of long-leaf and loblolly yellow pine.

Forestry.—These forests are the greatest and finest of their kind remaining in the United States. In 1898 it was estimated by Henry Gannett (followed by the Federal census of 1900) that the timbered area covered 28,300 sq. m. Professor C. S. Sargent estimated in 1884 that the stand of short-leaf and long-leaf pines aggregated respectively 21,625 and 26,558 million feet. The timber product of 1900 ($17,294,444) was almost ten times that of 1880 ($1,764,640); and in 1905 the product value ($35,192,374) was more than twice that of 1900. Nevertheless, in 1900 the cypress forests remained practically untouched, only slight impression had been made upon the pine areas, and the hard-wood forests, except that they had been culled of their choicest oak, remained in their primal state (U.S. census). Between 1900 and 1905 furniture factories and planing mills became somewhat important. Pond pine occurs only near the Pearl river. Curly pine is fairly abundant. The eastern pine belt is composed of the long-leaf pine, interspersed with some loblolly. It covers an area of about 3900 sq. m. The south-western pine belt contains the heaviest growth of long-leaf pine timber in the world, covering an area of about 4200 sq. m., and occasionally interspersed with short-leaf pine. The short-leaf growth is especially heavy in the north-western portion of the state, while the long-leaf is found mainly in large masses N. and S. of the Red river around Alexandria as a centre. The cypress forests of the alluvial and overflowed lands in the S. of the state are among the largest and the most heavily timbered known. The hard-woods are found in the river bottoms throughout the state.

Agriculture and Soils.—Agriculture is the chief industry of the State. In 1900 26.2% of the land was in farms, and of this

area about two-fifths was improved. The size of the average farm decreased in the two preceding decades from 171.3 to 95.4 acres. The percentage of farms operated by owners (*i.e.* owners, part owners, owners and tenants, and managers) fell from 64.8 to 42.1% from 1880 to 1900, and the percentage operated by cash tenants increased from 13.8 in 1880 to 24.9 in 1900, and by share tenants from 21.5 in 1880 to 33.0 in 1900; the percentage of farms operated by white farmers was 49.8 in 1900. The value of farm property, $198,536,906 in 1900, increased 79.8% in the preceding decade. The value of live stock in the latter year was $28,869,506. The total value of all farm products in 1899 was $72,667,302, of which $59,276,092 was the value of the distinctive crops—cotton, sugar and rice. The state bureau of agriculture in 1903 estimated that of the total area 14.9 millions of acres were timber land, 5.7 millions pasture and marsh, and 5.0 millions cultivated farm land.

In the N. there are many sandy districts in the uplands, also sandy clays; in the “second bottoms” of the streams fertile sandy loams; abundant tertiary marls in the north-central region; some gypsum in the cretaceous “islands”; and some fossiliferous marls with decomposed limestones. The prairies of south-western Louisiana have much yellow marl underlying them. Alluvial soil and bluff, the location of which has been indicated, are of primary agricultural importance. Reclaimed marsh-land and fresh alluvium (the so-called “front-lands” on rivers and bayous) are choice soil for Indian corn, sugar-cane, perique tobacco, semi-tropical fruits and cotton. The bluff lands are simply old alluvium now well drained and above all floods. The prairies of the S.W. are devoted almost exclusively to rice. On the hills yellow-leaf tobacco can be grown. Cereals and forage plants can be successfully grown everywhere, and varied and profitable agriculture is possible even on the “pine-barrens” or uplands of the N.; but more intelligent and more intensive farming is necessary than that practised by the average “piney-woods” farmer. The alluvial section of lower Louisiana is mostly devoted to sugar, and farther northward to Indian corn and cotton.

Cotton is the principal crop. In 1907 Louisiana ranked eighth in acreage of cotton (1,622,000 acres) among the states of the United States, and in 1907-1908 the cotton crop (675,428 bales) was eighth among the crops of the states. The average yield per acre varies from about .45 to .75 bale according to the season. In good seasons and exceptional localities the yield may approach a bale per acre, as in Assumption parish, and in the Mississippi valley at the junction of Louisiana, Mississippi and Arkansas. For many years there has been a reaction against the all-cotton farming system. In general, the small cotton farmer was at the mercy of the commission merchant, to whom he mortgaged his crops in advance; but this evil has lessened, and in some districts the system of advancing is either non-existent or very slightly developed.

In 1907-1908 all the sugar produced from cane grown in the United States came from Louisiana (335,000 long tons) and Texas (12,000 tons); in the same year cane sugar from Hawaii amounted to 420,000 tons, from Porto Rico to 217,000 tons and from the Philippines to 135,000 tons; and the total yield of beet sugar from the United States was 413,954 tons. Of all the cane grown, an amount between one-sixth and one-quarter—and that the best—must be reserved for seed every other year, and this is a great handicap to the state in competing with other cane regions and with the sugar beet. Of the total sugar consumption of the country in 1899-1904 Louisiana produced somewhat more than a fifteenth. Since about 1880 there have been central factories, and their increase has been a very prominent factor in the development of the industry, as it has been in Cuba. Though very much of the region S. of the Red river is fairly well suited to sugar-growing, it is still true that sugar cannot, over much of this area, be grown to so great advantage as other crops. Its hold upon the delta region is, however, almost unchallenged, especially since the rice farmers have found in the prairie lands that excel the delta for their purposes. Sugar is grown also in St Landry and the eastern part of Attakapas—a name formerly loosely applied to what are now St Mary, Iberia, Vermilion, St Martin and Lafayette parishes. Though introduced with success from Santo Domingo about the middle of the 18th century, the sugar industry practically dates from 1796, when Étienne Boré first succeeded in crystallizing and clarifying the syrup. Steam motive power was first introduced on the plantations in 1822. The average product of the ten seasons 1894-1904 was 299,745 tons. A state sugar experiment station is maintained at Audubon Park in New Orleans, its work embracing the development of seedlings, the improvement of cane varieties, the study of fungus diseases of the cane, the improvement of mill methods and the reconciliation of such methods (for example, the use of sulphur as a bleaching and clarifying agent) with the requirements of “pure food” laws. Good work has also been done by the Audubon sugar school of the state university, founded “for the highest scientific training in the growing of sugar cane and in the technology of sugar manufacture.”

Tobacco might be grown profitably over a large part of the state, but in reality very little is grown. The strong, black perique of the delta—cultivated very generally in the lower alluvial region before the Civil War, but now almost exclusively in St James parish—is a famous leaf, grown since early colonial times. Bright or yellow plug and smoking leaf are grown on the pine uplands and pine “flats,” and a small amount of cigar tobacco on the flats, prairies and “bluffs.” The total value of the tobacco crop of 35,000 ℔ in 1907 was only $10,000, an amount exceeded by each of the other 24 tobacco-growing states, and the crop was about one-twentieth of 1% of the product of the whole United States.

Rice farming, which had its beginning immediately after the Civil War and first became prominent in the ’seventies, has developed enormously since 1880. From 1879 to 1899 the product increased twenty-five fold. Formerly the grain was raised by preference in the river bottoms, which still yield, almost invariably, the earliest rice of the season and perhaps the finest. The “buckshot clays” of the backlands, which are so stiff that they can scarcely be ploughed until flooded and softened, and are remarkably retentive of moisture, are ideal rice soil; but none of the alluvial lands has an underlying hardpan, and they cannot as a rule be drained sufficiently to make the use of heavy harvesting machinery possible. In 1880 the prairies of the S.W. were opened to settlement by the railway. These prairies are traversed by ridges, which facilitate irrigation, and are underlaid by an impervious subsoil, which facilitates both effective storage and drainage. Thus the use of machinery became possible, and this revolutionized the entire industry. The year 1884 may be taken as the initial date of the new period, and the grain is now harvested exactly as is wheat in the west-central states. Previously the grain had ordinarily been cut with sickles and harvested by hand. The farms were also small, usually from 5 to 10 acres. They are now very much larger. All the prairies district—the centre of which is Crowley—is becoming one great rice field. Some rice also is grown on the lowlands of the Mississippi valley, notably in Plaquemines, Jefferson and Lafourche parishes. In the decade 1881-1890 Louisiana produced about half of the total yield of the country, and from 1891 to 1900 about five-sevenths. In 1904 and 1906 the Louisiana crop, about one-half of the total yield of the country, was larger than that of any other state; but in 1905 and in 1907 (6,192,955 ℔ and 7,378,000 ℔ respectively) the Louisiana crop was second in size to that of Texas. Carolina and Honduras rices were practically the only varieties until after 1896. Since that time select Japanese species, chosen for superior milling qualities, have been widely introduced, as the market prejudice in favour of head rice made the large percentage of broken rice a heavy handicap to the farmers. Hundreds of varieties have been tested by the state and federal agricultural experiment stations. A strong tendency to run to red rice (hardier, but not so marketable) has been a second great difficulty to overcome.

Irrigation is almost entirely confined to rice farms. In the prairie region there is abundant water at depths of 100 to 400 ft. beneath the surface, but this was little used for irrigation for the first few years of the development of this field, when water was pumped from the streams and canals. In 1902 nearly one-eighth of the acreage irrigated was by systems supplied from wells. The irrigated rice area increased 92.9% from 1899 to 1902, and the construction cost of irrigation works ($4,747,359 in 1902; $12.25 per irrigated acre) 87.7% in the same years. This increase was almost wholly in the prairie parishes. Of the total irrigated area for rice of 387,580 acres in 1902, 310,670 acres were in the parishes of Calcasieu, Acadia and Vermilion. In the Mississippi valley water is taken from the river by flumes in the levees or by siphons. The danger of floods and the difficulty of drainage make the extension of the practice unprofitable, and the opening of the prairies has made it unnecessary.

Many of the fruits of warm-temperate and semi-tropical lands, whether native or exotic, including oranges, olives, figs, grape-fruit, kumquats and pomegranates are cultivated. Oranges are grown especially on the coast. There are many fine groves on the Mississippi below New Orleans. The fig is a common door-yard tree as in other Gulf and South Atlantic states, and is never killed down by frost. Louisiana produced in 1899 only a fifth as great a value in sub-tropic fruits as Arizona and Texas combined. Orchard fruits are fairly varied, but, compared with other states, unimportant; and the production of small fruits is comparatively small, the largest crop being strawberries. Oranges and pears are seriously damaged by insect and fungus pests. The total value of fruit products in 1899 was $412,933. Among nuts the native pecan is exceptionally abundant,

the product (637,470 lb in 1899) being much greater than that of any other state save Texas.

The total value of cereal products in 1899 was $14,491,796, including Indian corn valued at $10,327,723 and rice valued at $4,044,489; in 1907 it was more than $27,300,000, including Indian corn valued at $19,600,000, rice valued at $7,378,000 and oats valued at $223,000. Indian corn is grown only for home use. Dairying interests are not largely developed, and in Texas and the adjoining states the "Texas fever" and "charbon" have done great damage to cattle. Forage crops are little grown, though soil conditions are favourable. Cowpeas are a common fertilizer. Garden trucking is very slightly developed, but has been successful where it has been tried. The state maintains a crop pest commission, the duties of which include the inspection of all nursery stock sold in the state.

Manufactures.—The state's manufacturing interests have during the last few decades grown greatly in importance. From 1890 to 1900 the capital invested, the cost of materials used and the value of output (in 1900, $121,181,683) increased respectively 225.4, 147.3 and 109.6%. The value of the factory products in 1900 was $111,397,919; in 1905 it was $186,379,592. Slightly above one-half of the product of 1900 was from New Orleans, and in 1905 about 45.4%. A constitutional amendment of 1902 exempted from parochial and municipal taxes between 1900 and 1910 practically all factories and mines in the state, employing at least five hands. Manufacturing industries are for the most part closely related to the products of the soil, about two-thirds of the value of all manufactures in 1900 and in 1905 being represented by sugar and molasses refining, lumber and timber products, cotton-seed oil and cake, and rice cleaned and polished.

Rice is milled at New Orleans, Crowley, Abbeville, Gayden, Jennings and Lake Charles. Ramie fibre and jute are available for coarse cloth; cotton weaving is almost non-existent. The lumber industry is centred chiefly in Calcasieu parish. Lake Charles, Westlake, Bogalusa, Bon Ami, Carson, Fisher, Fullerton, Leesville, Oakdale and Pickering were the leading sawmill towns of the state in 1908. Of the rarer woods particular mention may be made of curly pine, yielding a wood of beautiful figure and polish; magnolia, hard, close-grained, of fine polish and of great lasting qualities; and cypress, light, strong, easily worked and never-rotting. The timber cut of 1900 was officially stated as 1,214,387 M. ft. B.M., of which two-thirds were of yellow pine and most of the remainder of cypress. In some localities, especially in the "Florida parishes," small quantities of rosin and turpentine are taken from the long-leaf pine, but this industry was unimportant in Louisiana before 1908. Sawdust, slabs, stumps and large quantities of logs are wasted. Other manufactures with a product value in 1905 of between $4,000,000 and $1,000,000 were: bags (not paper); foundry and machine-shop products; planing-mill products; railway cars, construction and repairs; malt liquors; men's clothing; cooperage; food preparations; roasted and ground coffee and spice; fertilizers; cigars and cigarettes; cotton goods; and manufactured ice.

Communications.—The length of railway in the state was 1740 m. in 1890 and 4943.55 m. at the end of 1908. By the state constitution of 1898 and by amendments of 1902 and 1904 tax exemptions for ten years were granted to newly-built railroads completed before 1909. The principal roads are the Missouri Pacific (St Louis, Iron Mountain & Southern, New Orleans & North-western and St Louis, Watkins & Gulf), the Southern Pacific (Morgan's Louisiana & Texas Railroad & Steamship Co. and the Louisiana Western), the Texas & Pacific, the Kansas City Southern, the Vicksburg, Shreveport & Pacific, the Louisiana Railway & Navigation Co., the Yazoo & Mississippi Valley, the Illinois Central, and the Louisiana & Arkansas. The Illinois Central, the first railway giving Louisiana connexion with the north, and of immense importance in the trade of New Orleans, has only about 100 m. of double track in the state. The problem of inland waterways has always been a most important one in northern, eastern and southern Louisiana, where there are systems of improved bayous, lakes and canals which, with the levees, make this region something like Holland, on a greater scale. Many bayous are convertible by improvement into excellent drainage and irrigation canals. The canal system is especially well developed in the parishes of the Mississippi delta, where, at the close of 1907, there were about 50 m. of these waterways of decided commercial importance. They serve the trade of Lake Pontchartrain and the Florida parishes, the lumber, coal, fish, oyster and truck trade of New Orleans, and to some extent are the highway of a miscellaneous coasting trade. The most important canal is probably the new Atchafalaya Bay canal (14 ft. deep), opened in 1907, connecting the Atchafalaya river and Morgan City with the Gulf of Mexico. In 1907 active preliminary work was begun on the Louisiana section of a great interstate inland waterway projected by the national government between the Mississippi and Rio Grande rivers, almost parallel to the Gulf Coast and running through the rice and truck-farm districts from the Teche to the Mermenton river (92 m.). The competition of the water lines is felt by all the railways, and the importance of water transportation is rapidly increasing. A state railroad commission, organized in 1899, has power to regulate railway, steamer, sleeping-car, express, telephone and telegraph rates within the state. Foreign commerce is almost wholly centred at New Orleans.

Population.—The population of the state increased in the ten decades from 1810 to 1910 successively by 100.4, 40.6, 63.4, 46.9, 36.7, 2.7, 29.3, 19.0, 23.5 and 19.9%. In 1910 it was 1,656,388 (36.5 per sq. m.).[3] In 1900 47.1% was of negro blood, as compared with 51.5 in 1890. In 1910 there were nine cities with more than 5000 inhabitants each: New Orleans (339, 075); Shreveport (28,015); Baton Rouge (14,897), the capital; Lake Charles (11,449); Alexandria (11,213); Monroe (10,209); New Iberia (7449); Morgan (5477); Crowley (5099). The urban element is larger than in any other southern state, owing to the large population of New Orleans. The Acadians (see § *History* below) to-day are settled mainly in St Mary, Acadia and Vermilion parishes; lesser numbers are in Avoyelles and St Landry; and some are scattered in various other parishes. The parishes of St Mary, Iberia, Vermilion, St Martin and Lafayette are known as the Attakapas country from an Indian name. A colony of Germans sent over by John Law to the Arkansas removed to the Mississippi above New Orleans, and gave to its bank the name of the "German Coast," by which it is still known. In recent years there has been an immigration of Italians into Louisiana, which seems likely to prove of great social and economic importance. The industrial activity of the state has required more labour than has been available. The negroes have moved more and more from the country to the towns, where they easily secure work at good wages. Owing to the inadequate supply of labour two important immigration leagues of business men were formed in 1904 and 1905, and in 1907 the state government began officially to attempt to secure desirable foreign immigration, sending agents abroad to foster it. Roman Catholics greatly predominate among religious denominations, having in 1906 477,774 members out of a total of 778,901 for all denominations; in the same year there were 185,554 Baptists, 79,464 Methodists, 9070 Protestant Episcopalians and 8350 Presbyterians.

Administration.—Since the admission of the state to the Union in 1812 there have been eight state constitutions (not counting that of 1861) admirably illustrating—and not less the Territorial government preceding them—the development of American democracy and the problems connected with the negroes. Under the Territorial government the legislative officers were not at first elective. The "parishes" date from 1807; they were based on an earlier Spanish division for religious purposes—whence the names of saints in parish nomenclature. The constitution of 1812 allowed the General Assembly to name the governor from the two candidates receiving the highest number of votes; gave the governor large powers of appointment, even of local functionaries; and required a property qualification for various offices, and even for voters. The constitution of 1845 made the popular suffrage final in the choice of the governor, abolished property qualifications, and began to pare executive powers for the benefit of the General Assembly or the people. From it dates also the constitutional recognition of the public schools. In 1852 even the judges of the supreme court were placed among the officers chosen by popular vote. The constitutions of 1864 and 1868 were of importance primarily as bearing on negro status and national politics. That of 1879 showed a profound distrust of legislative action, bred of reconstruction experiences. Nearly all special legislation was forbidden. The last constitution (1898, with 26 amendments 1898-1906), unlike all others after that of 1812, was not submitted to the people for ratification.

Under this constitution sessions of the General Assembly are biennial (meeting the second Monday in May in even-numbered years) and are limited to sixty days. The number of senators is fixed by the constitution at 39; the number of representatives is to be not more than 116 or less than 98. Any elector is eligible for election as a representative if he has been a citizen of the state for five years and a resident of the district or parish from which he is elected for two years immediately preceding the election; a change of residence from the district or parish from which he was elected vacates the seat of a representative or senator. A senator must be at least 25 years of age. Members of the legislature are elected for four

years. Revenue or appropriation bills originate in the House of Representatives, but may be amended by the Senate. Contingent appropriations are forbidden, and the constitution contains a long list of subjects on which special laws may not be passed. The chief executive officers have four-year terms, neither the governor nor the treasurer being eligible for immediate re-election. The governor must be at least 30 years old and must have been a citizen of the United States and a resident of the state for 10 years next preceding his election. Within five days after the passage of any bill by the General Assembly he may veto this measure, which then becomes a law only if passed by a two-thirds vote of all members elected to each house of the General Assembly. The lieutenant governor (and then the secretary of state) succeeds to the office of governor if the governor is removed, dies or leaves the state. The five judges of the supreme court of the state are elected by the people for a term of twelve years. The supreme court is almost without exception a court of appeal with jurisdiction in cases involving at least $2000, in cases of divorce, in suits regarding adoption, legitimacy and custody of children and as regards the legality and constitutionality of taxes, fines, &c. The supreme court appoints courts of appeal to judge cases involving less than $2000. The constitution prohibits lotteries and the sale of lottery tickets.

The suffrage clauses are of particular interest, as they accomplish the practical disfranchisement of the negroes. The constitution requires that a voter must (in addition to other qualifications) either be able to show conclusively ability to read and write, or be the owner of property within the state assessed at not less than $300, on which, if personalty, all taxes are paid. But it excepts from these requirements—thus letting down the bars for illiterate whites excluded with negroes by the foregoing clauses—persons who were entitled to vote in some state on or before the 1st of January 1867 (*i.e.* before the adoption of the Fourteenth and Fifteenth Amendments of the United States Constitution); also the sons or grandsons of such voters, not under 21 years of age, on the 12th of May 1898; and males of foreign birth who have resided in the state for five years next preceding the date of application for registration and who were naturalized prior to 1898. The constitution provides that no person less than 60 years of age shall be permitted to vote unless he has paid an annual poll-tax of one dollar for the two years next preceding the year in which he offers to vote. Convicts not pardoned with an explicit restoration of suffrage privileges are disfranchised—a rare clause in the United States. Suffrage was by this constitution first extended to women tax-payers in questions “submitted to the tax-payers, as such.” The creation of a railroad commission was ordered and the preparation of a code of criminal law.

The Louisiana Board of Levee Commissioners was organized in 1865. The state board of health was the first one effectively organized (1855) in the United States. It encountered many difficulties, and until the definite proof of the stegomyia hypothesis of yellow-fever inoculation made by the United States army surgeons in Cuba in 1900, the greatest problem seemed insoluble. Since that time conditions of health in New Orleans have been revolutionized (in 1907 state control of maritime quarantine on the Mississippi was supplanted by that of the national government), and smaller cities and towns have been stimulated to take action by her example. Sanitary institutes are held by the state board at various towns each year for the instruction of the public. Boards of appraisers and equalization oversee the administration of the tax system; the cost of collection, owing to the fee system for payment of collectors, was higher than in any other state of the Union until 1907, when the fees were greatly reduced. The state assessment in 1901 totalled $301,215,222 and in 1907 was $508,000,000. Schools and levees absorb about half of all revenues, leaving half for the payment of interest on the state debt (bonded debt on 1st of April 1908, $11,108,300) and for expenses of government. A general primary election law for the selection, by the voters, of candidates for state office came into effect in 1906.

Law.—Louisiana has been peculiar among the states of the Union in the history of the development of its legal system. In Louisiana alone (as the state is known to-day), out of all the territory acquired from France as the Louisiana Purchase in 1803, was the civil law so established under French and Spanish rule that it persisted under American dominion. In all the other states formed from the Purchase, the civil law, never existent practically, was early expressly abrogated, and the common law of England established in its place. After O’Reilly established his power in 1769 (see *History*, below), the Spanish law was supreme. All the old codes of the Peninsula, as well as the laws of the Indies and special royal decrees and schedules, were in force in the colony. The United States left the task of altering the laws to the people, as far as there was no conflict between them and the Constitution of the United States and fundamental American legal customs. Copies of the Spanish codes were very rare, and some of them could not be had in the colonies. Discussions of the Roman Institute and Pandects were common in the deliberations of the courts. Great confusion prevailed in the first years of American dominion owing to the diversities of languages and the grafting of such Anglo-Saxon institutions as the jury upon the older system. A provisional code of judicial procedure, prepared by Edward Livingston, was in effect in 1805 to 1825. The earliest digest, completed in 1808, was mainly a compilation of Spanish laws. The project of the *Code Napoléon*, however—the *code* itself not being available in Louisiana, though promulgated in France in 1804—was used by the compilers in the arrangement and substance of their work; and the French traditions of the colony, thus illustrated, were naturally introduced more and more into the organic commentaries and developments that grew up around the *Code Napoléon*. This evolution was little marked, so similar in large parts were the systems of France and Spain (although in other parts, due to the Gothic element in the Spanish, they were very different)—a similarity which explains the facility with which O’Reilly and his successors introduced the Spanish laws after 1769. The Louisiana code of 1808 was not, however, exhaustive; and the courts continued to go back to the old Spanish sources whenever the digest was inconclusive. Thus so late as 1819, when the legislature ordered the compilation of such parts of King Alfonso’s *Siete Partidas* (the most common authority in the colony) as were considered in force, this compilation filled a considerable volume. In 1821 the legislature authorized Livingston to prepare the “Livingston Code” of criminal law and procedure, completed in 1824 (in French and English) and published in 1833, but never adopted by the state. In 1825 legislative sanction was given to the greater part of a civil code prepared by a commission (including Livingston) appointed in 1821, and the French element became steadily more important. In its present form the law shows plainly the Latin and English elements. English law has largely moulded, for example, criminal and commercial law and the law of evidence; the development of the law of corporations, damages, prohibitions and such extraordinary remedies as the mandamus has been very similar to that in other states; while in the fusion of law and equity, and the law of successions, family relations, &c., the civil law of Spain and France has been unaffected.

Education.—Schooling was very scant before the creation of the public schools in 1854. Very little was done for education in the French and Spanish period, although the Spanish governors made commendable efforts in this regard; the first American Territorial legislature began the incorporation of feeble “colleges” and “academies.” To some of these the state gave financial aid ($1,613,898) before 1845. The public schools were flourishing at the outbreak of the Civil War. War and reconstruction threw upon them the new burden of the black children. The constitution of 1879 was illiberal in this respect, but a healthier public opinion soon prevailed. The money given by the state to the public schools is distributed among the parishes according to their school population, and the constitution of 1898 set a generous *minimum* to such aid. An annual poll-tax is also collected for the schools from every adult male. Local taxes, besides, are imposed, and these are becoming heavier. The parishes retain primary control of the schools. Institutes, summer schools and rural libraries have been introduced. The salaries of white teachers advanced from a monthly average of $38.87 in 1903 to $61.84 in 1906. The average attendance of enrolled black and white pupils is practically identical, but the enrolment of whites (about 52% in 1902) is somewhat higher and that of the blacks about a third lower than their ratio in the population. The school term for white children is much longer than for negroes, and white teachers are paid much better salaries—in 1906 the average monthly salary of a negro teacher was $29.15. The total enrolment is very low. But progress is now being made very rapidly in the improvement of the educational system. Higher schools include: the State University and Agricultural and Mechanical College (1860) at Baton Rouge (*q.v.*); Tulane University of Louisiana (1864) in New Orleans; Jefferson College (1864; Roman Catholic) at Convent; the College of the Immaculate Conception (1847; Roman Catholic) in New Orleans; St Charles College (1835; Roman Catholic) at Grand Couteau; St Joseph’s College (1849; Roman Catholic) at Baton Rouge; the following colleges for women—Silliman Collegiate Institute (1852; Presbyterian) at Clinton, Mansfield Female College (1854; Methodist Episcopal, South) at Mansfield, the H. Sophie Newcomb Memorial College for women (a part of Tulane University) in New Orleans and the Louisiana Female College (1856; Baptist) at Keatchie; the State Normal School of Louisiana (1884) at Natchitoches and the New Orleans Normal and Training School; the South-western Louisiana Industrial Institute at Lafayette; the Louisiana

Industrial Institute at Ruston; and, among schools for negroes, the Peabody State Normal and Industrial School at Alexandria and New Orleans University (1873; Methodist Episcopal), Luther College (Evangelical Lutheran), Leland University (1870; Baptist), Straight University (Congregational) and Southern University (1883; aided by the state), all in New Orleans.

Charitable and Penal Institutions.—The State Board of Charities and Correction, for which the constitution of 1898 first made provision, and which was organized under an act of 1904, is composed of six members, appointed by the governor for six years, with the governor as *ex-officio* chairman. The members of the board serve gratuitously, but elect a salaried secretary. The board has no administrative or executive power, but makes annual inspections of all public charitable, correctional or reformatory institutions, all private institutions which receive aid from, or are used by municipal or parochial authorities, and all private asylums for the insane; and reports annually to the governor on the actual condition of the institutions. Any suggestions as to improvements in institutions must be approved by the majority of the governing body of that institution before they may be put into effect. The charitable institutions include two charity hospitals—at New Orleans (1832) and Shreveport; an Eye, Ear, Nose and Throat Hospital, a Hôtel Dieu, the Touro Infirmary and a Home for Incurables, all at New Orleans; an Institute for the Deaf and Dumb (for whites—there is no state provision for negro deaf and dumb) and an Institute for the Blind, both at Baton Rouge; an Insane Hospital at Jackson and another at Pineville; and the Louisiana Retreat for the Insane at New Orleans. At Monroe there is a State Reform School, and at New Orleans a Coloured Industrial Home and School. There is also a state home for disabled Confederate soldiers at New Orleans on Bayou St John. The State Penitentiary is at Baton Rouge, and a House of Detention at New Orleans; and there are parish prisons. State convicts, and all places in which they are confined or employed, are under the supervision of a Board of Control appointed by the governor. This board may allow commutation or diminution of sentence for good behaviour, meritorious services or exemplary conduct. The leasing or hiring of state convicts is prohibited by the constitution, but parish convicts may be hired or leased for farm and factory work, work on roads and levees, and other public undertakings. Such convicts are classified according to physical ability and a minimum rate is fixed for their hire, for not more than ten hours a day. Many state convicts are employed in levee construction, and there are convict farms at Angola, Hope, Oakley and Monticello.

History.—The early history of Louisiana belongs to the romance of American history. It is possible that the mouth of the Mississippi was discovered in 1519 by Alonso Alvarez de Piñeda, but this interpretation of his vague manuscript remains conjectural; and that it was discovered by the expedition of Panfilo de Narvaez cannot be established. That Hernando de Soto entered the borders of the present state of Louisiana, and that his burial place in the Mississippi was where that river takes the waters of the Red, are probable enough, but incapable of conclusive proof. Survivors of de Soto's expedition, however, descended the Mississippi to its mouth in 1542. Spain set up no claim to the region, and when Robert Cavalier, Sieur de la Salle, came down the river in 1682 from the French possessions to the north, he took possession in the name of France, which hereby gained her first title to the vast drainage basin of the Mississippi. In honour of Louis XIV. the new possession was named "Louisiana"—a name then and until 1812 applied to a much larger area than that of the present state. La Salle attempted to settle a colony in 1684, but missed the Mississippi's mouth and landed in Texas, where he was murdered in 1687 by some of his followers. In 1697, after Ryswick, Pierre le Moyne d'Iberville (1662-1706) was chosen to lead another colony, which reached the Gulf coast early in 1699. Soon after Iberville had built Fort Maurepas (near the present city of Biloxi, Mississippi) in 1699, a fort was erected on the Mississippi river about 40 m. above the mouth.

This was the earliest settlement in what is now the state of Louisiana. It was unhealthy and unprosperous. From 1712 to 1717 "Louisiana," or the French possessions of the Mississippi valley, was held by Antoine Crozat (1655-1738) as a private grant from the king. It proved as great a drain upon his purse as it had proved to the crown, and he willingly parted with it to the so-called "Western Company," afterwards incorporated with the great Company of the Indies. The head of this company was John Law, who, after spreading glowing accounts of the new land, launched his famous "Mississippi scheme" (see Law, John). The company accomplished much for the colony of Louisiana. Jean Baptiste le Moyne, Sieur de Bienville (1680-1768), a brother of Iberville, was sent out as governor. For forty years he was the life of the colony. One of his first acts was to found the city of New Orleans on its present site in 1718. In this same year seven vessels were sent from France with stores and immigrants; eleven followed during the next year. Five hundred negroes from the Guinea coast were imported in 1719, and many hundreds more soon followed. The Law company eventually came to an end fatal to its creditors in France, but its misfortunes did not check the prosperity of "Louisiana." The company retained its grant of the colony until 1731, when it reverted to the crown. Meantime New Orleans had become the seat of government in 1722. In 1766 an official census showed a total population of 5552. The years of royal rule were uneventful. Cotton culture began in 1740, and sugar-cane was successfully introduced from Santo Domingo by the Jesuits in 1751. Tafia rum and a waxy, sticky sugar syrup subsequently became important products; but not until the end of the century were the means found to crystallize sugar and so give real prosperity to the industry.

By a secret treaty of the 3rd of November 1762, "Louisiana" was transferred from France to Spain. This treaty was not made public for a year and a half, and Spain did not take full possession of the colony until 1769. By a treaty between Spain and France on the one hand and Great Britain and Portugal on the other, signed at Paris in February 1763, all that portion lying E. of the Mississippi river, the Iberville river, and Lakes Maurepas and Pontchartrain was ceded to Great Britain. The international interests thus created, and others that sprang from them, heavily burdened the diplomacy, and even threatened the safety of the United States after they were placed in possession of the eastern bank of the Mississippi down to 31° in 1783.

The news of the cession of the colony to Spain roused strong discontent among the colonists. Antonio de Ulloa (1716-1795), a distinguished Spanish naval officer and scholar, came to New Orleans in 1766 to take possession for his king. Merchants, people, and many civil officers held toward him from the beginning a hostile attitude; the military, especially, refused to pass into the Spanish service as stipulated in the treaty; and Ulloa was compelled to continue in an ambiguous and anomalous position—which his lack of military force probably first compelled him to assume—ruling the colony through the French governor, Philippe Aubry (who loyally supported him throughout), without publicly exhibiting his powers. The fear of Spanish commercial laws powerfully stimulated resistance to the transfer, and though Ulloa made commercial and monetary concessions, they were not sufficient. When the colonists found protests at Paris unavailing, they turned to the idea of independence, but sought in vain the armed support of the British at Pensacola. Nevertheless they compelled Ulloa to leave the colony or exhibit his credentials. He took his leave in November 1768. The open resistance by the colonists (October 1768) was a carefully planned revolt. There is no doubt that the men who led the Creole opposition contemplated independence, and this gives the incident peculiar interest. In the summer of 1769 Alejandro O'Reilly came to New Orleans with a strong military force (3600 troops). Beginning his rule with an affability that allayed suspicions and securing from Aubry proofs against the popular leaders, he invited them to a reception and arrested them while they were his guests. Five were put to death and others were imprisoned at Havana. O'Reilly put down the rebellion with determination and in accord with the instructions of his king. Regarded without republican sympathies, and in the light of 18th-century doctrines of allegiance, his acts, however severe, in no way deserve the stigma of cruelty ordinarily put upon them. He was liberal and enlightened in his general rule.

Among the incidents of these troubled years was the arrival in Louisiana (after 1765) of some hundreds of French exiles from Acadia, who made their homes in the Attakapas country. There their descendants live to-day, still somewhat primitively, and still in somewhat of the glamour thrown over land and people by the *Evangeline* of Longfellow.

On the 18th of August 1769 Louisiana was formally transferred to Spain. Spanish law and Spanish tongue replaced the French officially, but the colony remained essentially French. The Spanish rulers made efforts to govern wisely and liberally, showing great complaisance, particularly in heeding the profit of the colony, even at the expense of Spanish colonial commercial regulations. The judicial system was much improved, a better grade of officials became the rule, many French Creoles were appointed to office, intermarriages of French and Spanish and even English were encouraged by the highest

officials, and in general a liberal and conciliatory policy was followed, which made Louisiana under Spanish rule quiet and prosperous. Bernardo de Galvez (1756-1794), a brilliant young officer of twenty-one, when he became the governor of the colony, was one of the most liberal of the Spanish rulers and of all the most popular. During the American War of Independence he gave valuable aid to the United States; and when Spain finally joined in the war against Great Britain, Galvez, in a series of energetic and brilliant campaigns (1779-1781), captured all the important posts in the British colony of West Florida. The chief interest of the Spanish period lies in the advance of settlement in the western territories of the United States, the international intrigues—British, French and Spanish—involving the future of the valley, the demand of the United States for free navigation on the Mississippi, and the growing consciousness of the supreme importance of the river and New Orleans to the Union. With the Spanish governor Estevan Miro, who succeeded Galvez in 1785, James Wilkinson of Kentucky, arrested at New Orleans with a flat-boat of supplies in 1787, intrigued, promising him that Kentucky would secede from the United States and would join the Spanish; but Wilkinson was unsuccessful in his efforts to carry out this plan. In 1794 Spain, hard pressed by Great Britain and France, turned to the United States, and by the treaty of 1794 the Mississippi river was recognized by Spain as the western boundary of the United States, separating it from Louisiana, and free navigation of the Mississippi was granted to citizens of the United States, to whom was granted for three years the right “to deposit their merchandise and effects in the port of New Orleans, and to export them from thence without paying any other duty than a fair price for the hire of the stores.” At the expiration of the three years the Spanish governor refused the use of New Orleans as a place of deposit, and contrary to the treaty named no other port in its place. Spanish rule, however, came unexpectedly to an end by the retrocession of Louisiana to France in 1800; and French dominion gave way in turn in 1803—as the result of a chain of events even more unexpected, startling, and for the United States fortunate—to the rule of the last-named country. On the 30th of November 1803 the representatives of the French republic received formal possession from the Spanish governor, and on the 20th of December lower Louisiana was transferred to the United States. (See Louisiana Purchase.)

By an Act of Congress of the 25th of March 1804,[4] that portion of the Louisiana Purchase S. of 33° was organized as the Territory of Orleans, and was given a government less democratic than might otherwise have been the case, because it was intended to prepare gradually for self-government the French and Spanish inhabitants of the territory, who desired immediate statehood. The foreign slave-trade was forbidden by this organic act. English was made the official language. The introduction of English law, and the changes made in the judicial and legal systems of Louisiana after 1804 have already been described.

The machinations of Aaron Burr are of interest in connexion with Louisiana annals, and likewise the settlement and revolutionizing of West Florida by Americans. In November 1811 a convention met at New Orleans and framed a constitution under which, on the 30th of April 1812, the Territory of Orleans became the state of Louisiana. A few days later the portion of West Florida between the Mississippi and Pearl rivers (the present “Florida Parishes”) was included in its boundaries, making them as they are to-day. In this same year the first steamboat reached New Orleans. It descended the Ohio and Mississippi from Pittsburg, whence there had already been a thriving river trade to New Orleans for about thirty years. During the War of 1812 a decisive victory was won by the American forces at Chalmette, near New Orleans, on the 8th of January 1815. Up to 1860 the development of the state in population, agriculture and commerce was very rapid. Donaldsonville was the (nominal) capital in 1825-1831, Baton Rouge in 1849-1864 and again after 1882. At other times New Orleans has been the capital, and here too have always been various state offices which in other states ordinarily are in the state capital.

By an ordinance of secession passed on the 26th of January 1861, Louisiana joined the Confederate States. In the first year there was very little military activity in the state, but in April 1862 Admiral D. G. Farragut, with a powerful fleet, ascended the Mississippi past Forts Jackson and St Philip, which defended the approach to New Orleans, and a military force under General B. F. Butler occupied that city. The navigation of the river being secured by this success and by later operations in the north ending in July 1863 with the capture of Vicksburg and Port Hudson, the state was wholly at the mercy of the Union armies. The intervening months were signalized by the capture of Baton Rouge in May 1862—the Confederates vainly attempting to recapture it in August. Later, in April 1864, the Confederates under General Richard Taylor won a success against the Unionists under General N. P. Banks at Sabine Cross Roads near Mansfield and were themselves repulsed at Pleasant Hill, these battles being incidental to a campaign undertaken by the Union forces to crush opposition in western Louisiana. A large portion of the state was occupied by them in 1862-1865. There were various minor skirmishes in 1862 and 1863 (including the capture of the Federal camp at Berwick Bay in June 1863).

As early as December 1862 the Union military government, at President Lincoln’s direction, had ordered elections for Congress, and the men chosen were admitted in February 1863. In March 1864 also a state government to supersede the military rule was established under the president’s auspices. By 1863 two parties had arisen among the loyal classes: one of radicals, who demanded the calling of a constitutional convention and the abolition of slavery; the other of conservatives. The former prevailed, and by a convention that assembled in April 1864 a constitution was framed closely following that of 1852 but repudiating the debt incurred by Louisiana as one of the Confederate states and abolishing slavery. Two-thirds of the delegates were from New Orleans. The legislature was ordered to establish free schools for the blacks, and was empowered to give them the suffrage: neither of these provisions, however, was carried out. The extent of the Union control is shown by the fact that the legislature of 1864 represented half of the area and two-thirds of the population of the state. The army stood at the back of the new government, and by the end of 1864 Louisiana was apparently “reconstructed.” But in 1864 the opposition of Congress to presidential reconstruction had clearly developed, so that the electoral votes of Louisiana (like those of Tennessee) for president were not counted. By the spring of 1866 the ex-Confederates had succeeded in gaining possession of most of the local government and most of the state offices, although not of the governorship. The Republican party naturally became extremely radical. The radicals wished to have negro suffrage in order to get possession of the government. They, therefore, wanted still another constitutional convention. A clause in the constitution of 1864 provided for the reconvening of the convention in certain circumstances, but this clause referred only to necessities prior to the establishment of a government, and had therefore determined. Nevertheless, the radicals, because it was impossible to call a convention through the medium of the state government, took advantage of this clause to reconvoke the old convention at New Orleans. The day set was the 30th of July 1866. The ex-Confederate party determined to prevent the gathering, but the idea of interference by force seems to have been abandoned. A street riot was precipitated, however, incidental to a procession of armed negroes; the metropolitan police fired upon the assembled convention; and altogether some 200 persons, mostly negroes, were killed. This incident raised the crucial question of national politics in 1866: namely, whether the states reconstructed by the president should not again be reconstructed.

This being settled affirmatively, Louisiana was reconstructed with vigour. A constitution of 1868 gave suffrage to the blacks, and disfranchised all whites made ineligible to office under the proposed Fourteenth Amendment to the national Constitution, and also (practically) those who had by word, pen or vote defended secession. Then the state ratified the Fourteenth Amendment, and was declared readmitted to the Union in July 1868. Probably no other southern state suffered equally with Louisiana from the corruption of “carpet-bag,” “scalawag,” negro legislatures. For four years (1868-1872) the government expenses increased to ten times their normal volume, taxation was enormously increased, and about $57,000,000 of debt was created. But a quarrel broke out among the Republicans (1872), the result of which was the installation of two governors and legislatures, one supported by the Democrats and Liberal Republicans and the other by the radical Republicans, the former being certainly elected by the people. The rivalry of these two state governments, clashes of arms, the recognition by the Federal authorities of the radical Republican government (Pinchback and Kellogg, successively governors) followed. One historic clash in New Orleans (on the 14th of September 1874) between the “White League” (“White Man’s Party”) and the Republican police is commemorated by a monument, and the day is regarded by Louisianans as a sort of state independence-day. Finally, in 1876, Francis Tillon Nicholls (b. 1834), a Democrat, was chosen governor, but the Republican candidate, S. B. Packard, claimed the election, and with a Republican legislature for a time occupied the State

House. In the national election of 1876 there were double returns (Republican: 75,315 for Hayes and 70,508 for Tilden; and Democratic: 83,723 for Tilden and 77,174 for Hayes) from Louisiana, which, as was the case with the double electoral returns from Florida, Oregon and South Carolina, were adjudicated by the Electoral Commission in favour of the Republican electors voting for Hayes. Civil war being threatened within the state President Hayes sent to Louisiana a commission composed of Wayne McVeagh, Gen. J. R. Hawley, Charles B. Lawrence, J. M. Harlan, and John C. Brown, ex-Governor of Tennessee, which was instructed to promote "an acknowledgment of one government within the state." The rival legislatures united, organizing under the Nicholls government, which the commission found was upheld by public opinion. The president ordered the withdrawal of Federal troops from the capitol on the 20th of April 1877, and the white party was thus left in control.

After 1877 the state prospered markedly in all material respects. Of subsequent political events perhaps the most notable, besides the practical disfranchisement of the negroes, are those connected with the Louisiana State Lottery Company (1868-1893). For the renewal of its privileges in 1890 the company finally agreed to give the state $1,250,000 yearly, and despite strenuous opposition by a powerful party the legislature voted a renewal, but this measure was vetoed by the governor. The United States government, however, forbade lotteries the use of the mails, and the company withdrew its offers. The constitution of 1898 prohibits lotteries and the sale of lottery tickets within the state. In 1891 the lynching of eleven Italians at New Orleans gave rise to grave difficulties involving Italy, the United States, and the state of Louisiana. Since 1900 a white Republican Party has made some headway in Louisiana politics, but in national and state elections the state has been uninterruptedly and overwhelmingly Democratic since 1877.

Governors of Louisiana[5]

French Domination 1682-1762.	
A. le Moyne, Sieur de Sauvolle (died in office)	1699-1701
J. B. le Moyne, Sieur de Bienville	1701-1713
M. de Muys, appointed 1707, died en route, Bienville continuing to serve.	
Lamothe Cadillac	1713-1716
Sieur de Bienville, acting governor	1716-1717
De l'Épinay	1717-1718
Sieur de Bienville	1718-1724
Boisbriant, *ad interim*	1724-1726
Périer	1726-1733
Sieur de Bienville	1733-1743
Marquis de Vaudreuil	1743-1753
L. Billouart, Chevalier de Kerlerec	1753-1763
D'Abbadie	1763-1765
Philippe Aubry	1765-1769
Spanish Domination 1762 (1769)-1803.	
Antonio de Ulloa[6]	1766-1768
Alejandro O'Reilly[7]	1769-1770
Luis de Unzaga	1770-1777
Bernardo de Galvez[8]	1777-1785
Estevan Miró (*ad interim* 1785-1786)	1785-1791
F. L. Hector, Baron de Carondelet 30 Dec.	1791-1797
M. Gayoso de Lemos (died in office)	1797-1799
Francisco Bouligny, José M. Vidal, acting military and civil-political governors	1799
Sebastian de Casa Calvo de la Puerta, Marquis de Casa Calvo	1799-1801
Juan M. de Salcedo	1801-1803
French Domination 1800-1803.[9]	
Laussat, Colonial Prefect	30 Nov.-20 Dec. 1803
American Domination since 1803. *Territorial Period.*	
William C. C. Claiborne (appointed 1803)	1804-1812
Statehood Period.	
William C. C. Claiborne, Democratic Republican	1812-1816
Jacques Villeré, Democratic Republican	1816-1820
Thomas B. Robertson, Democratic Republican (resigned)	1820-1822
Henry S. Thibodaux, Democratic Republican (acting)	1822-1824
Henry S. Johnson, Democratic Republican	1824-1828
Pierre Derbigny, Democratic Republican (died in office)	1828-1829
Armand Beauvais and Jacques Dupré (acting)	1829-1831
André B. Roman, Whig	1831-1835
Edward D. White, Whig	1835-1839
André B. Roman, Whig	1839-1843
Alfred Mouton, Whig	1843-1846
Isaac Johnson, Democrat	1846-1850
Joseph Walker, Democrat	1850-1853
Paul O. Hébert, Democrat	1853-1856
Robert C. Wickliffe, Democrat	1856-1860
Thomas O. Moore, Democrat	1860-1862
George F. Shepley, Military Governor	1862-1864
Henry W. Allen, Confederate	1864-1865
Michael Hahn, Unionist and Military	1864-1865
James M. Wells, Democrat (acting)	1865-1867
Benjamin F. Flanders, Military	1867
Joshua Baker, Military	1867-1868
Henry C. Warmoth, Republican	1868-1873
Pinckney B. S. Pinchback, Republican (acting)	1873
John McEnery,[10] Democrat-Liberal Republican	1873
William P. Kellogg, Radical Republican	1873-1877
Stephen B. Packard,[11] Radical Republican (contestant)	1877
Francis T. Nicholls, Democrat	1877-1880
Louis A. Wiltz, Democrat (died in office)	1880-1881
Samuel D. McEnery, Democrat (Lieutenant-Governor, succeeded)	1881-1884
Samuel D. McEnery, Democrat	1884-1888
Francis T. Nicholls, Democrat	1888-1892
Murphy J. Foster, Democrat	1892-1900
William W. Heard, Democrat	1900-1904
Newton C. Blanchard, Democrat	1904-1908
Jared Y. Sanders,[12] Democrat	1908

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For history: the standard work is that of Charles E. A. Gayarré, coming down to the war, based on deep and scholarly research, and greatly altered in successive editions. The style is that of the classic school, that of Prescott and Motley, full of colour, characterization and spirit. The editions are as follows: *Romance of the History of Louisiana* (New York, 1837, 1848); *Histoire de la Louisiane* (2 vols., Nouvelle Orléans, 1846-1847); *Louisiana: its Colonial History and Romance* (N.Y., 1851); *Louisiana: its History as a French Colony*, Third Series of Lectures (N.Y., 1852); then, based upon the preceding, *History of Louisiana: The French Domination* (2 vols., N.Y., 1854) and *The Spanish Domination* (N.Y., 1854); *The American Domination* (N.Y., 1867); and third edition (4 vols., New Orleans, 1885). More important for the recent period is Alcée Fortier; *A History of Louisiana* (N.Y., 4 vols., 1904) devoting two volumes to American domination. The *History and General Description of New France* of P. F. X. de Charlevoix (best ed. by J. G. Shea, New York, 1866, 6 vols.) is a famous old work, but now negligible. Judge F. X. Martin's *History of Louisiana* (2 vols., New Orleans, 1827-1829, later ed. by J. F. Condon, continued to 1861, New Orleans, 1882) is also valuable and supplements Gayarré. Le Page du Pratz, author of *Histoire de la Louisiane* (3 vols., Paris, 1758; 2 vols., London, 1763), was the first historian of Louisiana. Berquin-Duvallon, *Vue de la colonie espagnole du Mississippi* (Paris, 1805; published in English under the name of John Davis, New York, 1806); L. N. Baudry de Lozières, *Voyage à la Louisiane* (Paris, 1802) and *Second Voyage à la Louisiane* (Paris, 1803) may be mentioned among the travels just preceding, and A. Stoddard, *Sketches of Louisiana* (New York, 1811), among those just following the establishment of American dominion. The *Histoire de la Louisiane, et de la cession de colonie par la France aux États-Unis* (Paris, 1829; in English, Philadelphia, 1830) by Barbé-Marbois has great importance in diplomatic history. The rarest and most valuable of early memoirs and much archive material are embodied in Benj. F. French's *Historical Collections of Louisiana* (5 series, N.Y., 1846-1853) and *Historical Collections of Louisiana and Florida*, New Series (N.Y., 1869, 1875). Documentary materials on the greater "Louisiana" between the Gulf of Mexico and Canada will be found in the *Jesuit Relations*, edited by R. G. Thwaites (Cleveland, 1896 ff.); and on early voyages in Pierre Margry, *Découvertes et établissements des Français* (6 vols., Paris, 1879-1888). John G. Shea published an edition of Louis Hennepin's *Description of Louisiana ... Translated from the Edition of 1683*, &c. (New York, 1880). On this greater "Louisiana" the student should also, consult the works of Francis Parkman. And see publications of the Louisiana Historical Society (New Orleans). Of brief general histories there is that of J. R. Ficklen above cited, another by the same author in collaboration with Grace King (New Orleans, 1902) and another (more valuable) by Albert Phelps (Boston, 1905), in the American Commonwealth Series. For the Reconstruction period see bibliography under UNITED STATES.

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1 A sixth, less characteristic, might be included, viz. the "pine flats," generally wet, which are N. of Lake Pontchartrain, between the alluvial lands and the pine hills, and, in the S.E. corner of the state, between the hills and the prairie.

2 The original channel of the Red river. It has been so useful in relieving the Mississippi of floods, that the Red river may possibly be permanently diverted again into the bayou artificially.

3 The population was 76,556 in 1810; 153,407 in 1820; 215,739 in 1830; 352,411 in 1840; 517,762 in 1850; 708,002 in 1860; 726,915 in 1870; 939,946 in 1880; 1,118,588 in 1890; and 1,381,825 in 1900.

4 Other acts bearing on Territorial government are those of the 31st of October 1803 and the 23rd of March 1805.

5 Terms of *actual service in Louisiana*; Gayarré is the authority for the French and Spanish period.

6 Did not openly assume power or supersede Aubry.

7 Captain-general charged to establish order and settle Unzaga as governor.

8 At first, till 1779, only acting governor.

9 Actual exercise of power 20 days.

10 Counted out by partisan returning-board and not recognized by U.S. government.

11 Not recognized by U.S. government.

12 Elected U.S. Senator 1910; accepted, but afterward withdrew.

LOUISIANA, a city of Pike county, Missouri, U.S.A., situated below the mouth of the Salt river, on the western bank of the Mississippi, about 90 m. N. of St. Louis. Pop. (1900) 5131, including 1075 negroes and 161 foreign-born; (1910) 4454; there is also a considerable suburban population. Louisiana is served by the Chicago, Burlington & Quincy and the Chicago & Alton railways, and by several lines of river steamboats. The river is spanned here by a railway bridge. The city is laid out fairly regularly in the river valley and on bluffs along the river, and has attractive residential districts, commanding good

views. It has very active and varied industries, and is a trade centre for a large grain- and fruit-producing and stock-raising region, and has one of the largest nurseries in the United States. Louisiana was laid out in 1818, was the county-seat from that date until 1825, was incorporated as a town in 1845 and was chartered as a city in 1849.

LOUISIANA PURCHASE, a large portion of the area of the United States of America, purchased from the French Republic in 1803. The territory to which France held explorer's title originally included the entire valley of the Mississippi (see Louisiana); but the "Louisiana" which was ceded by her to Spain in 1762 (England refusing it, preferring the Floridas), retroceded to France in 1800,[1] and ceded by Napoleon to the United States—in violation of his pledge to Spain that he would not alienate the province—embraced only the portion W. of the river and the island of New Orleans on the E. (and, as might be claimed with some show of argument, West Florida to the Perdido river).

With the settlement of the trans-Alleghany region, the freedom of the Mississippi had become of vital importance to the western settlements, and Spain had recognized these interests in her treaty with the United States of 1795, by guaranteeing freedom of navigation and the privilege of deposit at New Orleans. The transfer of Louisiana from a weak neighbour to so powerful and ambitious a state as France was naturally unwelcome to the United States, and Robert R. Livingston, the American minister in Paris, was instructed by Secretary-of-State Madison to endeavour to prevent the consummation of the retrocession; or, should that be irrevocable, to endeavour to buy the Floridas (either from France, if they had passed with Louisiana, or through her goodwill from Spain)—or at least West Florida—and if possible New Orleans, so as to give the United States a secure position on the Mississippi, and insure the safety of her commerce. The United States was also trying to collect claims of her merchants for spoliations by French cruisers during the late war between France and Great Britain. In his preliminary propositions Livingston lightly suggested to Talleyrand a cession of Louisiana to satisfy these claims; following it with the more serious demand that France should pledge observance of the Spanish concession to the Mississippi trade. This pledge Napoleon readily gave. But during these negotiations a suspension by the Spanish governor of the right of deposit aroused extreme apprehension in America and resulted in warlike votes in Congress. Of these, and of London reports of a British expedition against New Orleans preparing in anticipation of the imminent rupture of the peace of Amiens, Livingston made most capable use; and pressed for a cession of West Florida, New Orleans and Louisiana north of the Arkansas river. But without New Orleans Louisiana was of little present worth, and Napoleon—the collapse of whose American colonial schemes seemed involved in his failure in Santo Domingo, who was persuaded he could not hold Louisiana against Great Britain, and who was already turning from projects of colonial empire toward his later continental policy—suddenly offered to Livingston the whole of the province. Livingston disclaimed wanting the part below the Arkansas. In even mentioning Louisiana he had gone outside his instructions. At this stage James Monroe became associated with him in the negotiations. They were quickly closed, Barbé Marbois acting for Napoleon, and by three conventions signed on the 30th of April 1803 the American ministers, without instructions, boldly accepted for their country a territory approximately 1,000,000 sq. m. in area —about five times the area of continental France. For this imperial domain, perhaps the richest agricultural region of the world, the United States paid 60,000,000 francs ($11,250,000) outright, and assumed the claims of her citizens against France to the extent of 20,000,000 francs ($3,750,000) additional; the interest payments incidental to the final settlement raising the total eventually to $27,267,622, or about four cents an acre.

Different writers have emphasized differently the various factors in this extraordinary diplomatic episode. Unquestionably the western people were ready to war for the navigation of the Mississippi; but, that being guaranteed, it seems certain that France might peaceably have taken and held the western shore. The acquisition was not a triumph of American diplomacy, but a piece of marvellous diplomatic good fortune; for the records abundantly prove, as Madison said, that the cause of success was a sudden policy of Napoleon, forced by European contingencies. Livingston alone of the public men concerned showed indubitably before the event a conception of the feasibility and desirability of the acquisition of a vast territory beyond the Mississippi. Jefferson had wished to buy the Floridas, but alarmed by the magnitude of the cession, declared his belief that the United States had no power to acquire Louisiana. Though such strict construction of the constitution was a cardinal dogma of the Democratic party, this dogma was abandoned outright in practice, Jefferson finding "but one opinion as to the necessity of shutting up the constitution" (or amending it, which was not done) and seeking justification of the means in the end. The Federalist party, heretofore broad-constructionists, became strict-constructionists under the temptation of factious politics, and a very notable political struggle was thus precipitated—notable among other things for strong expressions of sectionalism. The net result was the establishment of the doctrine of "implied powers" in interpreting the constitution; a doctrine under which the Supreme Court presently found power to acquire territory implied in the powers to wage war and make peace, negotiate treaties, and "dispose of and make all needful rules and regulations respecting the territory or other property belonging to the United States."

The exact limits of the acquisition were not definitely drawn. The French archives show that Napoleon regarded the Rio Grande as the W. boundary of the territory of which he was to take possession, and the United States up to 1819 ably maintained the same claim. She also claimed all West Florida as part of Louisiana—which, in the usage of the second half of the 18th century, it apparently was not. When she acquired the Floridas in 1819-1821 she abandoned the claim to Texas. The line then adopted between the American and Spanish possessions on the W. followed the Sabine river from the Gulf of Mexico to the parallel of 32° N., ran thence due N. to the Red river, followed this to the meridian of 100° W. and this line N. to the Arkansas river, thence along this to its source, thence N. to the parallel of 42°, and along this line to the Pacific. Such is the accepted description of the W. boundary of the Louisiana Purchase—waiving Texas—thus retrospectively determined, except that that boundary ran with the crest of the Rocky Mountains N. of its intersection with the parallel of 42°. No portion of the Purchase lay west of the mountains, although for some years after 1870 the official maps of the United States government erroneously included Oregon as so acquired—an error finally abandoned by 1900.

On the 20th of December 1803, at New Orleans, the United States took possession of the lower part of the province, and on the 9th of March 1804, at St Louis, of the upper. The entire region then contained possibly 80,000 residents. The treaty of cession required the incorporation of Louisiana in the Union, and the admission of its inhabitants, "as soon as possible, according to the principles of the Federal Constitution, to the enjoyment of all the rights, advantages and immunities of citizens of the United States." By act of the 26th of March 1804 the region below 33° N. was organized as the Territory of Orleans (see Louisiana), and that above as the District of Louisiana. The region above 33°, renamed in 1805 the Territory of Louisiana, and in 1812 the Territory of Missouri, was divided as time went on into many Indian reservations, territories and states. Thus were carved from the great domain of the Purchase Louisiana, Missouri, Arkansas, Iowa, Minnesota, North and South Dakota, Nebraska and Oklahoma in their entirety, and much the greatest part of Kansas, Colorado, Wyoming and Montana. There is justification for the saying of Thiers that the United States were "indebted for their birth and for their greatness"—at least for an early assurance of greatness—"to the long struggle between France and England." The acquisition of so vast a territory proved thus of immense influence in the history of the United States. It made it possible for them to hold a more independent and more dignified position between France and England during the Napoleonic wars; it established for ever in practice the doctrine of implied powers in the interpretation of the Federal Constitution; it gave the new republic a grand basis for material greatness; assured its dominance in North America; afforded the field for a magnificent experiment in expansion, and new doctrines of colonization; fed the national land hunger; incidentally moulded the slavery issue; and

precipitated its final solution.

It is generally agreed that after the Revolution and the Civil War, the Louisiana Purchase is the greatest fact in American history. In 1904 a world's fair, the Louisiana Purchase Exposition, was held at St Louis in commemoration of the cession. After one hundred years the wilderness then acquired had become the centre of the power and wealth of the Union. It contained in 1903 15,000,000 inhabitants, and its taxable wealth alone was four hundred times the fifteen millions given to Napoleon.

AUTHORITIES.—The official literature is in the *American State Papers*, *Foreign Relations*, vol. 2, and *Public Lands*, vol. 2; diplomatic papers reprinted in *House Document 431, 57th Congress, 2nd Session* (1903); to which add the *Histoire de la Louisiane et de la cession* (Paris, 1829; Eng. trans., Philadelphia, 1830), by François Barbé-Marbois. This book abounds in supposed "speeches" of Napoleon, and "sayings" by Napoleon and Livingston that would have been highly prophetic in 1803, though no longer so in 1829. They have been used liberally and indiscriminatingly by the most prominent American historians. See also T. Donaldson, *The Public Domain*, *House Miscellaneous Document 45, pt. 4, 47th Congress, 2nd Session*. For the boundary discussions by J. Q. Adams and Don L. de Onis, 1818-1819, *American State Papers*, *Foreign Relations*, vol. 4; also in Onis's *Official Correspondence between Don Luis de Onis ... and John Quincy Adams*, &c. (London, 1818), or *Memoria sobre las negociaciones entre España y los Estados Unidos que dieron motivo al tratado de 1819* (Madrid, 1820). See also discussion and map in *U.S. Census, 1900, Bulletin 74*; and the letters of Thomas Jefferson, James Madison, Rufus King and other statesmen of the time. By far the best general account of the diplomacy is in Henry Adams's *History of the United States*, vols. 1 and 2; and of Western conditions and American sentiment in J. B. McMaster's *History of the United States*, vols. 2 and 3. Consult also Justin Winsor, *Narrative and Critical History*, vol. 7; and various valuable periodical articles, especially in the *American Historical Review*, by F. J. Turner and others. Reference may be made to B. Hermann, *The Louisiana Purchase* (Washington, 1898), and Theodore Roosevelt's *Winning of the West*, vol. 4. Of the various special but popular accounts (by J. K. Hosmer, Ripley Hitchcock, R. Blanchard, K. E. Winship, &c.), not one is worthy of its subject, and all contain various inaccuracies.

1 By the treaty of San Ildefonso, signed the 1st of October 1800. This was never ratified by Charles IV. of Spain, but the treaty of Madrid of the 21st of March 1801, which confirmed it, was signed by him on the 15th of October 1802.

LOUISVILLE, the largest city of Kentucky, U.S.A., and the county-seat of Jefferson county, on the Ohio river, 110 m. by rail and 130 m. by water S.W. of Cincinnati. Pop. (1890) 161,129; (1900) 204,731, of whom 21,427 were foreign-born (including 12,383 Germans and 4198 Irish) and 39,139 were negroes; (1910 census) 223,928.

Louisville occupies 40 sq. m. of a plain, about 70 sq. m. in extent, about 60 ft. above the low-water mark of the river, and nearly enclosed by hills. The city extends for 8 m. along the river (spanned here by three bridges), which falls 26 ft. in 2 m., but for 6 m. above the rapids spreads out into a beautiful sheet of quiet water about 1 m. wide. The streets intersect at right angles, are from 60 to 120 ft. wide, and are, for the most part, well-shaded. The wholesale district, with its great tobacco warehouses, is largely along Main Street, which runs E. and W. not far from the river; and the heart of the shopping district is along Fourth Street in the dozen blocks S. of Main Street. Adjoining the shopping district on the S. is the old residence section; the newer residences are on "The Highlands" at the E. end and also at the W. end. The city is served by the Baltimore & Ohio South-Western, the Chesapeake & Ohio, the Pittsburg, Cincinnati, Chicago & St Louis, the Louisville, Henderson & St Louis, the Illinois Central, the Chicago, Indiana & Louisville, the Cleveland, Cincinnati, Chicago & St Louis, the Southern and the Louisville & Nashville railways; by steamboat lines to Memphis, Cairo, Evansville, Cincinnati and Pittsburg; by an extensive system of inter-urban electric lines; and by ferries to Jeffersonville and New Albany, Indiana, two attractive residential suburbs.

Many of the business houses are old-fashioned and low. The principal public buildings are the United States government building, the Jefferson county court house and the city hall. In front of the court house stands a bronze statue of Thomas Jefferson, designed by Moses Ezekiel (b. 1844), and inside of the court house a marble statue of Henry Clay by Joel T. Hart (1810-1870). There are few or no large congested tenement-house districts; most of the wage-earners own their own homes or rent cottages. Louisville has an extensive park system, most of which was acquired after 1889 and is on the outskirts. From the heart of the city South Parkway, 150 ft. wide, extends S. 6 m. to the entrance to Iroquois Park (670 acres) on a wooded hill. At the E. end of Broadway is Cherokee Park (nearly 330 acres), near which is the beautiful Cave Hill Cemetery, containing the grave of George Rogers Clark, the founder of the city, and the graves of several members of the family of George Keats, the poet's brother, who lived in Louisville for a time; and at the W. end of Broadway, Shawnee Park (about 170 acres), with a long sandy river beach frequented by bathers. Central Park occupies the space of two city squares in the old fashionable residence districts. Through the efforts of a Recreation League organized in 1901 a few playgrounds are set apart for children. Louisville is a noted racing centre and has some fine tracks; the Kentucky Derby is held here annually in May.

The United States government has a marine hospital, and a life-saving station at the rapids of the river. The state has a school for the blind, in connexion with which is the American Printing House for the Blind. There are state hospitals and many other charitable institutions.

The principal educational institutions are the university of Louisville, which has a College of Liberal Arts (1907), a law department (1847), and a medical department (1837)—with which in 1907 were consolidated the Hospital College of Medicine (1873), the Medical Department of Kentucky University (1898), the Louisville Medical College (1869), and the Kentucky School of Medicine (1850); the Southern Baptist Theological Seminary (1859); the Presbyterian Theological Seminary of Kentucky, which was formed in 1901 by the consolidation of the Theological Seminary of the Presbyterian Church at Danville (1853) and the Louisville Presbyterian Theological Seminary (1893); the Louisville College of Pharmacy (1871), and the Louisville College of Dentistry (1887), a department of Central University. There are many musical clubs, and a spring festival for which a local chorus furnishes the nucleus, is held annually. The Louisville Public Library was established in 1902, and 1904 acquired the library, the small museum (containing the Troost collection of minerals) and the art gallery of the Polytechnic Society of Louisville (1878), which for many years had maintained the only public library in the city. The principal newspapers are the *Courier Journal* (Democratic, morning), the *Herald* (Republican, morning), the *Evening Post* (Independent Democratic), and the *Times* (Democratic, evening). The *Courier Journal* is one of the most influential newspapers in the South. Henry Watterson became editor in 1868, when the *Courier* (1843), established and owned by Walter N. Haldeman, was consolidated with the *Journal* (1830), of which Watterson had become editor in 1867, and with the *Democrat* (1844).

The richness of the surrounding country in agricultural produce, timber, coal and iron, and its transport facilities have made Louisville a large commercial and manufacturing centre. The leaf-tobacco market is the largest in the world, most of the leaf-tobacco produced in Kentucky, which in 1900 was 34.9% of the entire crop of the United States, being handled in Louisville; the city's trade in whisky, mules and cement[1] is notably large, and that in pork, wheat, Indian corn, coal and lumber is extensive. The total value of the manufactured products increased from $54,515,226 in 1890 to $78,746,390 in 1900 or 44.4%, and between 1900 and 1905 the value of the factory-made product increased from $66,110,474 to $83,204,125, an

increase of 25.9%. Large quantities of fine bourbon whisky are distilled here; in 1905 the value of the factory product of the city was $3,878,004. The most valuable manufacture in the same year was smoking and chewing tobacco (especially plug tobacco) and snuff valued at $11,635,367—which product with that of cigars and cigarettes ($1,225,347) constituted 15.5% of the value of the factory products of the city. Other important manufactures in 1905 were: packed meats, particularly pork; men's clothing, especially "Kentucky jeans"; flour and grist mill products; cotton-seed oil and cake; leather, especially sole leather; foundry and machine shop products; steam-railway cars; cooperage; malt liquors; carriages and wagons, especially farm wagons; and carriage and wagon materials; agricultural implements, especially ploughs; and plumbers' supplies, including cast-iron gas and water pipes. Besides, there were many other manufactures.

The city's water-supply is taken from the Ohio river a few miles above the city limits, and purified by large filtering plants. Nearly all the capital stock of the water-works company is owned by the municipality.

Louisville is governed under a charter of 1893, which is in the form of an act of the state legislature for the government of cities of the first class (Louisville is the only city of the first class in the state). The mayor is elected for four years, and appoints, subject to the approval of the board of aldermen, the controller and the members of the two principal executive boards—the board of public works and the board of public safety. The legislative power is vested in a general council composed of 12 aldermen and 24 councilmen. Both aldermen and councilmen serve without pay, and are elected on a general ticket for a term of two years; not more than two councilmen may be residents of the same ward, but there is no such limitation in regard to aldermen. The treasurer, tax-receiver, auditor, judge of the police court, clerk of the police court, members of the board of school trustees (1 from each legislative district) and members of the park commission are elected by popular vote; the assessor, by the general council. The duration of franchises given by the city is limited to 20 years.

History.—The site of the city was probably visited by La Salle in 1669 or 1670. In July 1773, Captain Thomas Bullitt,[2] acting under a commission from the College of William and Mary, surveyed a tract of 2000 acres, lying opposite the Falls of the Ohio, and laid out a town site upon this tract. Colonel William Preston, county surveyor of Fincastle county, within which the 2000-acre tract lay, refused to approve Captain Bullitt's survey, and had the lands resurveyed in the following year, nevertheless the tract was conveyed in December 1773 by Lord Dunmore to his friend Dr John Connolly, a native of Lancaster county, Pennsylvania, who had served in the British army, as commander of Fort Pitt (under Dunmore's appointment), was an instigator of Indian troubles which culminated in the Battle of Point Pleasant, and was imprisoned from 1775 until nearly the close of the War of American Independence for attempting under Dunmore's instructions to organize the "Loyal Foresters," who were to be sent against the rebellious colonists in the West. The city of Louisville was laid out on the upper half of this Connolly tract. It is possible that there was a settlement on what was afterward called Corn Island (which has now practically disappeared), at the Falls of the Ohio, as early as 1775; in May 1778, General George Rogers Clark, while proceeding, by way of the Ohio river, against the British posts in the Illinois territory, landed on this island and built block-houses for his stores and cabins for about twenty families of emigrants who had come with him. These emigrants (or the greater part of them) removed to the mainland in the winter of 1778-1779, and established themselves in a fort built within the present limits of Louisville. A town government was organized by them in April 1779, the settlement at this time being known as "the Falls of the Ohio." On the 14th of May 1780, the legislature of Virginia, in response to a petition of the inhabitants, declared that Connolly had forfeited his title, and incorporated the settlement under the name of Louisville, in recognition of the assistance given to the colonies in the War of Independence by Louis XVI. of France. In 1828 Louisville was chartered as a city; in 1851 it received a second city charter; in 1870, a third; and in 1893, a fourth. The city's growth was greatly promoted by the introduction of successful steam navigation on the Ohio in 1811 and still further by the opening of the canal around the rapids (generally called the "Falls of the Ohio"). This canal, which is 2½ m. in length and is known as the Louisville and Portland canal, was authorized by the legislature in 1825 and was opened in December 1830; between 1855 and 1872 Congress made appropriations for enlarging it, and in 1874 it passed entirely under Federal control. The first railway to serve the city, the Louisville & Frankfort, was completed in 1851. The 6th of August is locally known as "Bloody Monday"; on this day in 1855 some members of the Know Nothing Party incited a riot that resulted in the loss of several lives and of considerable property. In March 1890 a tornado caused great loss in life and property in the city. General Clark made his home in Louisville and the vicinity after his return from the Illinois country in 1779. Louisville was also the early home of the actress Mary Anderson; John James Audubon lived here in 1808-1812; and 5 m. E. of the city are the old home and the grave (with a monument) of Zachary Taylor.

See Reuben T. Durrett, *The Centenary of Louisville* (Louisville, 1893), being No. 8 of the Filson Club Publications; J. S. Johnston (ed.), *Memorial History of Louisville* (Chicago, 1896); and L. V. Rule, "Louisville, the Gateway City to the South," in L. P. Powell's *Historic Towns of the Southern States* (New York, 1900).

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1 Louisville cement, one of the best-known varieties of natural cement, was first manufactured in Shipping Port, a suburb of Louisville, in 1829 for the construction of the Louisville & Portland Canal; the name is now applied to all cement made in the Louisville District in Kentucky and Indiana. There is a large Portland cement factory just outside the city.

2 Captain Thomas Bullitt (1730-1778), a Virginian, commanded a company under Washington at Great Meadows (July 4, 1754), was in Braddock's disastrous expedition in 1755, and after the defeat of Major James Grant in 1758 saved his disorganized army by a cleverly planned attack upon the pursuers. He became Adjutant-General of Virginia after the peace of 1763, and took part in the movements which forced Lord Dunmore to leave Norfolk. Subsequently he served in South Carolina under Colonel Lee.

LOULÉ, a town of southern Portugal, in the district of Faro (formerly the province of Algarve); beautifully situated in an inland hilly district, 10 m. N.N.W. of the seaport of Faro and 5 m. from São João da Venda on the Lisbon-Faro railway. Pop. (1900) 22,478. Apart from Lisbon, Oporto and Braga, Loulé is the most populous town in the kingdom. It is surrounded by walls and towers dating from the Moorish period. The neighbouring church of Nossa Senhora da Piedade is a favourite resort of pilgrims. Basket-making is the principal industry; leather, porcelain and various products of the palm, agave and esparto grass are also manufactured.

LOURDES, a town of south-western France in the department of Hautes-Pyrénées, at the foot of the Pyrenees, 12 m. S.S.W. of Tarbes on the main line of the Southern railway between that town and Pau. Pop. (1906) 7228. Lourdes is divided into an old and a new town by the Gave de Pau, which at this point leaves the valley of Argelès and turns abruptly to the west. The old quarter on the right bank surrounds on three sides a scarped rock, on which stands the fortress now used as a prison. Its large square keep of the 14th century is the chief survival of feudal times. Little is left of the old fortifications except a tower of the 13th or 14th century, surmounting a gateway known as the Tour de Garnabie. The old quarter is united with the

new town by a bridge which is continued in an esplanade leading to the basilica, the church of the Rosary and the Grotto, with its spring of healing water. The present fame of Lourdes is entirely associated with this grotto, where the Virgin Mary is believed in the Roman Catholic world to have revealed herself repeatedly to a peasant girl named Bernadette Soubirous in 1858. A statue of the Virgin stands on a rock projecting above the grotto, the walls of which are covered with crutches and other votive offerings; the spot, which is resorted to by multitudes of pilgrims from all quarters of the world, is marked by a basilica built above the grotto and consecrated in 1876. In addition the church of the Rosary, a rich building in the Byzantine style, was erected in front of and below the basilica from 1884 to 1889. Not far from the grotto are several other caves, where prehistoric remains have been found. The Hospice de Notre-Dame de Douleurs is the chief of the many establishments provided for the accommodation of pilgrims.

Lourdes is a fortified place of the second class; and is the seat of the tribunal of first instance of the arrondissement of Argelès. There are marble and slate quarries near the town. The pastures of the neighbourhood support a breed of Aquitaine cattle, which is most highly valued in south-western France.

The origin of Lourdes is uncertain. From the 9th century onwards it was the most important place in Bigorre, largely owing to the fortress which is intimately connected with its history. In 1360 it passed by the treaty of Brétigny from French to English hands, and its governor was murdered by Gaston Phoebus viscount of Béarn, for refusing to surrender it to the count of Anjou. Nevertheless the fortress did not fall into the possession of the French till 1406 after a blockade of eighteen months. Again during the wars of religion the castle held out successfully after the town had been occupied by the troops of the Protestant captain Gabriel, count of Montgomery. From the reign of Louis XIV. to the beginning of the 19th century the castle was used as a state prison. Since the visions of Bernadette Soubirous, their authentication by a commission of enquiry appointed by the bishop of Tarbes, and the authorization by the pope of the cult of Our Lady of Lourdes, the quarter on the left bank of the Gave has sprung up and it is estimated that 600,000 pilgrims annually visit the town. The chief of the pilgrimages, known as the national pilgrimage, takes place in August.

Several religious communities have been named after Our Lady of Lourdes. Of these one, consisting of sisters of the third order of St Francis, called the Congregation of Our Lady of Lourdes (founded 1877), has its headquarters in Rochester, Minnesota. Another, the Order of Our Lady of Lourdes, was founded in 1883 for work in the archdiocese of New Orleans.

See G. Marès, *Lourdes et ses environs* (Bordeaux, 1894); Fourcade, *L'Apparition de la grotte de Lourdes* (Paris, 1862) and *L'Apparition ... considérée au point de vue de l'art chrétien* (Bordeaux, 1862); Boissarie, *Lourdes, histoire médicale* (Paris, 1891); Bertrin, *Hist. critique des événements de Lourdes* (2nd ed., Paris, 1905), written under authority of the bishop of Tarbes; H. Lasserre, *Miraculous Episodes of Lourdes* (London, 1884, tr.); R. F. Clarke, *Lourdes and its Miracles* (*ib.*, 1889) and *Medical Testimony to the Miracles* (*ib.*, 1892); D. Barbé, *Lourdes hier, aujourd'hui, demain* (Paris, 1893; Eng. trans. by A. Meynell, London, 1894); J. R. Gasquet, *The Cures at Lourdes* (London, 1895); *Les Pèlerinages de Lourdes. Cantiques, insignes, costumes* (Lourdes, 1897); W. Leschner, *The Origin of Lourdes* (London, 1900). Zola's *Lourdes* (Paris, 1894), a criticism from the sceptical point of view, in the form of a realistic novel, has called forth many replies from the Catholic side.

LOURENÇO MARQUES, capital of Portuguese East Africa, or Mozambique, on the north bank of the Espirito Santo or English river, Delagoa Bay, and 396 m. by rail via Pretoria from Johannesburg. Pop. (1904) 9849, of whom 4691 were Europeans and 1690 Asiatics. The town is situated close to the mouth of the river in 25° 53′ S. and 32° 30′ E., and is built upon a low-lying spit of sand, formerly surrounded by swamps. The streets are regularly laid out and adorned by several fine buildings. The principal thoroughfare, the Avenida Aguiar, 2 m. long, goes from the centre of the town to Reuben Point. The harbour is well equipped with piers, quays, landing sheds and electric cranes, which enable large steamers to discharge cargoes direct into the railway trucks. The depth of water at low tide is 18 ft. The streets are lit by electricity and there is an electric tramway system 7 m. in extent. At Reuben Point, which marks the spot where the English river enters the bay, are the lighthouse, barracks and the private residences of the wealthy citizens. At its mouth the English river is about 2 m. across. Lourenço Marques is the nearest seaport to the Rand gold mines. The port is 8374 m. from Southampton via Cape Town and 7565 m. via the Suez canal. It is served by British, Portuguese and German liners, the majority of the goods imported being shipped at Southampton, Lisbon or Hamburg. Over 50% of the import trade of Johannesburg is with Lourenço Marques. Great Britain and British possessions take some 40% of the import trade, Portugal, Germany, Norway, Sweden and America coming next in order. Most of the imports, being forwarded to the Transvaal, figure also as exports. The chief articles of import are food-stuffs and liquors, iron, mineral oils, inks and dyes, timber and live stock. These all form part of the transit trade. There is practically no export trade by sea save in coal, which is brought chiefly from the collieries at Middelburg in the Transvaal. At Port Matolla, 20 m. from the town, on the river of that name, one of the feeders of the English river, is a flourishing timber trade. The average value of the total trade of Lourenço Marques for the five years 1897-1899 and 1902-1903 (1900 and 1901 being years during which trade was disorganized by the Anglo-Boer War) was over £3,500,000. In 1905 the value of the trade of the port was £5,682,000; of this total the transit trade was worth over £4,500,000 and the imports for local consumption £1,042,000. The retail trade, and trade with the natives, is almost entirely in the hands of Indians. The chief import for local consumption is cheap wine from Portugal, bought by the Kaffirs to the extent of over £500,000 yearly. These natives form the bulk of the Africans who work in the Rand gold mines.

Lourenço Marques is named after a Portuguese navigator, who with a companion (Antonio Calderia) was sent in 1544 by the governor of Mozambique on a voyage of exploration. They explored the lower courses of the rivers emptying their waters into Delagoa Bay, notably the Espirito Santo. The various forts and trading stations which the Portuguese established, abandoned and re-occupied on the north bank of the river were all called Lourenço Marques. The existing town dates from about 1850, the previous settlement having been entirely destroyed by the natives. In 1871 the town was described as a poor place, with narrow streets, fairly good flat-roofed houses, grass huts, decayed forts and rusty cannon, enclosed by a wall 6 ft. high then recently erected and protected by bastions at intervals. The growing importance of the Transvaal led, however, to greater interest being taken in Portugal in the port. A commission was sent by the Portuguese government in 1876 to drain the marshy land near the settlement, to plant the blue gum tree, and to build a hospital and a church. It was not, however, until the end of the 19th century that any marked development took place in the town, and up to 1903 cargo had to be discharged in tugs and lighters.

In 1873-1877 Mr Burgers, president of the Transvaal, endeavoured, unsuccessfully, to get a railway built from Pretoria to Delagoa Bay. In 1878-1879 a survey was taken for a line from Lourenço Marques to the Transvaal, and in 1883 the Lisbon cabinet granted to Colonel Edward McMurdo, an American citizen, a concession—which took the place of others which had lapsed—for the building of a railway from Lourenço Marques to the Transvaal frontier, the Boer government having agreed (1883) to continue the line to Pretoria. Under this concession Colonel McMurdo formed in London in 1887 a company—the Delagoa Bay and East African Railway Company—to construct the line. Meantime a secret agreement had been come to between President Kruger and Portugal for the concession to the Transvaal of a "steam tramway" parallel to the projected railway, should the company not complete the line in the time specified. The company, however, built the line to the frontier shown on the Portuguese maps of 1883 within the time limit, the railway being opened on the 14th of December 1888. The frontier by this date had been fixed at Komati Poort, 5 m. farther from the coast. Portugal had previously agreed to grant the

company “a reasonable extension of time” to complete the line if the frontier should be traced farther inland than shown on the 1883 maps. The Lisbon government required the extension to Komati Poort to be completed in eight months (five of which were in the rainy season), an impossible stipulation. The railway not being finished, the Portuguese seized the line on the 25th of June 1889 and cancelled the concession. Portugal in so doing acted, to all appearance, under pressure from the Transvaal. Great Britain and America at once protested, Portugal admitted the illegality of her act and consented to refer the amount of compensation to the decision of three Swiss jurists. This was in 1890, when Portugal paid £28,000 on account. It was not until the 29th of March 1900 that the award was made known. The arbitrators ordered Portugal to pay—in addition to the £28,000—a sum, including interest, of £950,000. The damages were promptly paid. Meantime the railway had been continued from Komati Poort and was opened for through traffic to Pretoria on the 8th of July 1895. In 1906-1910 another railway (47 m. long) was built from Lourenço Marques due west to the Swaziland frontier, being a link in a new line to shorten the distance by rail between the Rand and the sea by some 60 m.

See also DELAGOA BAY and the authorities there cited. The text of the railway arbitration award was published in French at Berne in 1900. Annual reports on the trade of Lourenço Marques are issued by the British Foreign Office.

LOUSE (O. Eng. *lús*, cf. Du. *luis*, Ger. *Laus*, Dan. and Swed. *lus*), a term applied to small wingless insects, parasitic upon birds and mammals, and belonging strictly speaking to the order Anoplura, often included among the Hemiptera, though the term is frequently extended to the bird-lice constituting the suborder Mallophaga, formerly included among the Neuroptera. Both agree in having nothing that can be termed a metamorphosis; they are active from the time of their exit from the egg to their death, gradually increasing in size, and undergoing several moults or changes of skin. The true lice (or Anoplura) are found on the bodies of many Mammalia, and occasion by their presence intolerable irritation. The number of genera is few. Two species of *Pediculus* are found on the human body, and are known ordinarily as the head-louse (*P. capitis*) and the body-louse (*P. vestimenti*); *P. capitis* is found on the head, especially of children. The eggs, laid on the hairs, and known as “nits,” hatch in about eight days, and the lice are full grown in about a month. Such is their fecundity that it has been asserted that one female (probably of *P. vestimenti*) may in eight weeks produce five thousand descendants. Want of cleanliness favours their multiplication in a high degree—the idea once existed, and is probably still held by the very ignorant, that they are directly engendered from dirt. The irritation is caused by the rostrum of the insect being inserted into the skin, from which the blood is rapidly pumped up. A third human louse, known as the crab-louse (*Phthirius pubis*) is found amongst the hairs on other parts of the body, particularly those of the pubic region, but probably never on the head. The louse of monkeys is now generally considered as forming a separate genus (*Pedicinus*), but the greater part of those infesting domestic and wild quadrupeds are mostly grouped in the large genus *Haematopinus*, and very rarely is the same species found on different kinds of animals.

The bird-lice (Mallophaga) are far more numerous in species, although the number of genera is comparatively small. With the exception of the genus *Trichodectes*, the various species of which are found on mammalia, all infest birds (as their English names implies) (see BIRD-LOUSE). Louse-infestation is known as phthiriasis in medical and veterinary terminology.

AUTHORITIES.—The following works are the most important: Denny, *Monographia Anoplurorum Britanniae* (London, 1843); Giebel, *Insecta Epizoa* (which contains the working-up of Nitzsch’s posthumous materials; Leipzig, 1874); van Beneden, *Animal Parasites* (London, 1876); Piaget, *Les Pédiculines* (Leiden, 1880); Mégnin, *Les Parasites et les maladies parasitaires* (Paris, 1880); Neumann, *Parasites and Parasitic Diseases of Domesticated Animals* (1892); Osborn, *Pediculi and Mallophaga affecting Man and the Lower Animals* (Washington, 1891; U.S. Dept. Agr.); Enderlein, “Läuse-Studien,” *Zool. Anz.* xxviii. (1904).

LOUTH, a maritime county in the province of Leinster, Ireland, bounded N.E. by Carlingford Bay and Co. Down, E. by the Irish Sea, S.W. by Meath, and N.W. by Monaghan and Armagh. It is the smallest county in Ireland, its area being 202,731 acres or about 317 sq. m. The greater part of the surface is undulating, with occasionally lofty hills; in the north-east, on the borders of Carlingford Lough, there is a mountain range approaching 2000 ft. in height. Many of the hills are finely wooded, and towards the sea the scenery, in the more elevated districts, is strikingly picturesque. With the exception of the promontory of Clogher Head, which rises abruptly to a height of 180 ft., the coast is for the most part low and sandy. The narrow and picturesque Carlingford Lough is navigable beyond the limits of the county, and Carlingford and Greenore are well-known watering-places on the county Louth shore. The Bay of Dundalk stretches to the town of that name and affords convenient shelter. The principal rivers, the Fane, the Lagan, the Glyde and the Dee, flow eastwards. None of these is navigable, but the Boyne, which forms the southern boundary of the county, is navigable for large vessels as far as Drogheda.

Almost all this county is occupied by an undulating lowland of much-folded Silurian shales and fine-grained sandstones; but Carboniferous Limestone overlies these rocks north and east of Dundalk. Dolerite and gabbro, in turn invaded by granite, have broken through the limestone north of Dundalk Bay, and form a striking and mountainous promontory. There is now no doubt that these rocks, with those on the adjacent moorland of Slieve Gullion, belong to the early Cainozoic igneous series, and may be compared with similar masses in the Isle of Skye. A raised beach provides a flat terrace at Greenore. Lead ore has been worked in the county, as in the adjacent parts of Armagh and Monaghan.

In the lower regions the soil is a very rich deep mould, admirably adapted both for cereals and green crops. The higher mountain regions are covered principally with heath. Agriculture generally is in an advanced condition, and the farms are for the most part well drained. The acreage of tillage is but little below that of pasture. Oats, barley, flax, potatoes and turnips are all satisfactorily cultivated. Cattle, sheep, pigs and poultry represent the bulk of the live stock. Linen manufactures are of some importance. The deep-sea and coast fishery has its headquarters at Dundalk, and the salmon fisheries at Dundalk (Castletown river) and Drogheda (river Boyne). These fisheries, together with oyster beds in Carlingford Lough, are of great value. The county is traversed from S. to N. by the Great Northern railway, with a branch westward from Dundalk; while the same town is connected with the port of Greenore by a line owned by the London & North-Western railway of England. From Greenore the London & North-Western railway passenger steamers run regularly to Holyhead. The town of Ardee is served by a branch from the Great Northern line at Dromin.

The population (71,914 in 1891; 65,820 in 1901) decreases at about an average rate, and a considerable number of the inhabitants emigrate. Of the total population about 92% are Roman Catholics. The principal towns are Dundalk (pop. 13,076), Drogheda (12,760) and Ardee (1883). The county includes six baronies and sixty-four parishes. Assizes are held at Dundalk and quarter sessions at Ardee, Drogheda and Dundalk. Louth was represented by two county and ten borough members in the Irish parliament; the two present divisions are the north and south, each returning one member. The county is in the

Protestant dioceses of Armagh and Clogher and the Roman Catholic diocese of Armagh.

The territory which afterwards became the county Louth was included in the principality of Uriel, Orgial or Argial, which comprehended also the greater part of Meath, Monaghan and Armagh. The chieftain of the district was conquered by John de Courcy in 1183, and Louth or Uriel was among the shires generally considered to have been created by King John, and peopled by English settlers. Until the time of Elizabeth it was included in the province of Ulster. County Louth is rich in antiquarian remains. There are ancient buildings of all dates, and spears, swords, axes of bronze, ornaments of gold, and other relics have been discovered in quantities. Among Druidical remains is the fine cromlech of Ballymascanlan, between Dundalk and Greenore. Danish raths and other forts are numerous. It is said that there were originally twenty religious houses in the county. Of the remains of these the most interesting are at Monasterboice and Mellifont, both near Drogheda. At the former site are two churches, the larger dating probably from the 9th century, the smaller from the 13th; a fine round tower, 110 ft. in height, but not quite perfect; and three crosses, two of which, 27 and 15 ft. in height respectively, are adorned with moulding, sculptured figures and tracery, and are among the finest in Ireland. At Mellifont are the remains of the first Cistercian monastery founded in Ireland, in 1142, with a massive gatehouse, an octagonal baptistery and chapter-house. Carlingford and Drogheda have monastic remains, and at Dromiskin is a round tower, in part rebuilt. Ardee, an ancient town, incorporated in 1376, has a castle of the 13th century. At Dunbar a charter of Charles II. (1679) gave the inhabitants the right to elect a sovereign. Louth, 5½ m. S.W. from Dundalk, is a decayed town which gave its name to the county, and contains ruins of an abbey to which was attached one of the most noted early schools in Ireland.

LOUTH, a market-town and municipal borough in the E. Lindsey or Louth parliamentary division of Lincolnshire, England, on the river Lud, 141½ m. N. of London by the Grimsby branch of the Great Northern railway. Pop. (1901) 9518. By a canal, completed in 1763, there is water communication with the Humber. The Perpendicular church of St James, completed about 1515, with a spire 300 ft. in height, is one of the finest ecclesiastical buildings in the county. Traces of a building of the 13th century are perceptible. There are a town hall, a corn exchange and a market-hall, an Edward VI. grammar school, which is richly endowed, a commercial school founded in 1676, a hospital and several almshouses. Thorpe Hall is a picturesque building dated 1584. In the vicinity are the ruins of a Cistercian abbey (Louth Park). The industries include the manufacture of agricultural implements, iron-founding, brewing, malting, and rope and brick-making. The town is governed by a mayor, 6 aldermen and 18 councillors. Area, 2749 acres.

Louth (*Ludes, Loweth*) is first mentioned in the Domesday record as a borough held, as it had been in Saxon times, by the bishop of Lincoln, who had a market there. The see retained the manor until it was surrendered by Bishop Holbeach to Henry VIII., who granted it to Edward, earl of Lincoln, but it was recovered by the Crown before 1562. Louth owed much of its early prosperity to the adjacent Cistercian abbey of Louth Park, founded in 1139 by Alexander bishop of Lincoln. The borough was never more than prescriptive, though burgesses were admitted throughout the middle ages and until 1711, their sole privilege being freedom from tolls. The medieval government of the town was by the manor court under the presidency of the bishop's high steward, the custom being for the reeve to be elected by eighteen ex-reeves. The original parish church was built about 1170. During the 13th and 14th centuries nine religious gilds were founded in the town. Fear of confiscation of the property of these gilds seems to have been one of the chief local causes of the Lincolnshire Rebellion, which broke out here in 1536. The disturbance began by the parishioners seizing the church ornaments to prevent their surrender. The bishop's steward, who arrived to open the manorial court for the election of a reeve, agreed to ride to ask the king the truth about the jewels, but this did not satisfy the people, who, while showing respect to a royal commission, seized and burnt the papers of the bishop's registrar. After swearing several country gentlemen to their cause, the rebels dispersed, agreeing to meet on the following day under arms. Edward VI. in 1551 incorporated Louth under one warden and six assistants, who were to be managers of the school founded by the same charter. This was confirmed in 1564 by Elizabeth, who granted the manor of Louth to the corporation with all rights and all the lands of the suppressed gilds at an annual fee-farm rent of £84. James I. gave the commission of the peace to the warden and one assistant in 1605; a further charter was obtained in 1830. Louth has never been a parliamentary borough. The markets said to have been held from ancient times and the three fairs on the third Sunday after Easter and the feasts of St Martin and St James were confirmed in 1551. Louth was a seat of the wool trade as early as 1297; the modern manufactures seem to have arisen at the end of the 18th century, when, according to the charter of 1830, there was a great increase in the population, manufactures, trade and commerce of the town.

See E. H. R. Tatham, *Lincolnshire in Roman Times* (Louth, 1902); Richard W. Goulding, *Louth Old Corporation Records* (Louth, 1891).

LOUVAIN (Flem. *Leuven*), a town of Belgium in the province of Brabant, of which it was the capital in the 14th century before the rise of Brussels. Pop. (1904) 42,194. Local tradition attributes the establishment of a permanent camp at this spot to Julius Caesar, but Louvain only became important in the 11th century as a place of residence for the dukes of Brabant. In 1356 Louvain was the scene of the famous *Joyeuse Entrée* of Wenceslas which represented the principal charter of Brabant. At that time it had a population of at least 50,000 and was very prosperous as the centre of the woollen trade in central Belgium. The gild of weavers numbered 2400 members. The old walls of Louvain were 4½ m. in circumference, and have been replaced by boulevards, but within them there is a considerable extent of cultivated ground. Soon after the *Joyeuse Entrée* a serious feud began between the citizens and the patrician class, and eventually the duke threw in his lot with the latter. After a struggle of over twenty years' duration the White Hoods, as the citizens called themselves, were crushed. In 1379 they massacred seventeen nobles in the town hall, but this crime brought down on them the vengeance of the duke, to whom in 1383 they made the most abject and complete surrender. With this civil strife the importance and prosperity of Louvain declined. Many weavers fled to Holland and England, the duke took up his residence in the strong castle of Vilvorde, and Brussels prospered at the expense of Louvain. What it lost in trade it partially recovered as a seat of learning, for in 1423, Duke John IV. of Brabant founded there a university and ever since Louvain University has enjoyed the first place in Belgium. It has always prided itself most on its theological teaching. In 1679 the university was established in the old Cloth Workers' Hall, a building dating from 1317, with long arcades and graceful pillars supporting the upper storeys. The library contains 70,000 volumes and some 500 manuscripts. Attached to the university are four residential colleges at which the number of students average two thousand. In the 16th century when the university was at the height of its fame it counted six thousand.

The most remarkable building in Louvain is the Hôtel de Ville, one of the richest and most ornate examples of pointed Gothic in the country. If less ornate than that of Oudenarde it is more harmonious in its details. It was the work of Mathieu de Layens, master mason, who worked at it from 1448 to 1463. The building is one of three storeys each with ten pointed

windows forming the façade facing the square. Above is a graceful balustrade behind which is a lofty roof, and at the angles are towers perforated for the passage of the light. The other three sides are lavishly decorated with statuary. The interior is not noteworthy.

Opposite the Hôtel de Ville is the fine church of St Pierre, in the form of a cross with a low tower to which the spire has never been added. The existing edifice was built on the site of an older church between 1425 and 1497. It contains seven chapels, in two of which are fine pictures by Dierich Bouts formerly attributed to Memling. Much of the iron and brass work is by Jean Matseys. There is also an ancient tomb, being the monument of Henry I., duke of Brabant, who died in 1235. There are four other interesting churches in Louvain, viz. Ste Gertrude, St Quentin, St Michael and St Jacques. In the last-named is a fine De Crayer representing St Hubert. Some ruins on a hill exist of the old castle of the counts of Louvain whose title was merged in the higher style of the dukes of Brabant.

LOUVER, Louvre or Luffer, in architecture, the lantern built upon the roof of the hall in ancient times to allow the smoke to escape when the fire was made on the pavement in the middle of the hall. The term is also applied to the flat overlapping slips of wood, glass, &c., with which such openings are closed, arranged to give ventilation without the admission of rain. Openings fitted with louvers are now utilized for the purposes of ventilation in schools and manufactories.

The word has been derived from the French *l'ouvert*, the "open" space. This, Minsheu's guess, is now generally abandoned. The Old French form, of which the English is an adaptation, was *lover* or *lovier*. The medieval Latin *lodium*, *lodarium*, is suggested as the ultimate origin. Du Cange (*Glossarium*, s.v. "lodia") defines it as *lugurium*, *i.e.* a small hut. The English form "louvre" is due to a confusion with the name of the palace in Paris. The origin of that name is also unknown; *louverie*, place of wolves, is one of the suggestions, the palace being supposed to have originally been a hunting-box (see Paris).

LOUVET, JEAN (*c.* 1370-*c.* 1440), called the president of Provence, occupied the position of president of the Chambre des Comptes at Aix in 1415. Towards the end of that year he went to Paris with Louis II. of Anjou, king of Sicily, attached himself to the dauphin Charles, and after having been chief steward of the household to Queen Isabella he turned against her. He was one of the principal agents of the Armagnac party, and became the most influential adviser of Charles VII. during the first years of his reign. But his rapacity gained him enemies, and when the constable Arthur, earl of Richmond, attained a preponderating influence over Charles VII. Louvet retired to his captaincy of Avignon. He still remained a personage of importance in his exile, and played an influential part even in his last years.

See Vallet de Viriville in the *Nouvelle Biographie générale*, and G. du Fresne de Beaucourt, *Histoire de Claries VII.* (1881-1891).

(J. V.*)

LOUVET DE COUVRAI, JEAN BAPTISTE (1760-1797), French writer and politician, was born in Paris on the 12th of June 1760, the son of a stationer. He became a bookseller's clerk, and first attracted attention with a not very moral novel called *Les Amours du chevalier de Faublas* (Paris, 1787-1789). The character of the heroine of this book, Lodoïska, was taken from the wife of a jeweller in the Palais Royal, with whom he had formed a *liaison*. She was divorced from her husband in 1792 and married Louvet in 1793. His second novel, *Émilie de Varmont*, was intended to prove the utility and necessity of divorce and of the marriage of priests, questions raised by the Revolution. Indeed all his works were directed to the ends of the Revolution. He attempted to have one of his unpublished plays, *L'Anobli conspirateur*, performed at the Théâtre Français, and records naïvely that one of its managers, M. d'Orfeuil, listened to the reading of the first three acts "with mortal impatience," exclaiming at last: "I should need cannon in order to put that piece on the stage." A "sort of farce" at the expense of the army of the *émigrés, La Grande Revue des armées noire el blanche*, had, however, better success: it ran for twenty-five nights.

Louvet was, however, first brought into notice as a politician by his *Paris justifié*, in reply to a "truly incendiary" pamphlet in which Mounier, after the removal of the king to Paris in October 1789, had attacked the capital, "at that time blameless," and argued that the court should be established elsewhere. This led to Louvet's election to the Jacobin Club, for which, as he writes bitterly in his Memoirs, the qualifications were then "a genuine *civisme* and some talent." A self-styled *philosophe* of the true revolutionary type, he now threw himself ardently into the campaign against "despotism" and "reaction," *i.e.* against the moderate constitutional royalty advocated by Lafayette, the Abbé Maury and other "Machiavellians." On the 25th of December 1791 he presented at the bar of the Assembly his *Pétition contre les princes*, which had "a prodigious success in the senate and the empire." Elected deputy to the Assembly for the department of Loiret, he made his first speech in January 1792. He attached himself to the Girondists, whose vague deism, sentimental humanitarianism and ardent republicanism he fully shared, and from March to November 1792 he published, at Roland's expense, a bi-weekly *journal-affiche*, of which the title, *La Sentinelle*, proclaimed its mission to be to "enlighten the people on all the plots" at a time when, Austria having declared war, the court was "visibly betraying our armies." On the 10th of August he became editor of the *Journal des débats*, and in this capacity, as well as in the Assembly, made himself conspicuous by his attacks on Robespierre, Marat and the other Montagnards, whom he declares he would have succeeded in bringing to justice in September but for the poor support he received from the Girondist leaders. It is more probable, however, that his ill-balanced invective contributed to their ruin and his own; for him Robespierre was a "royalist," Marat "the principal agent of England," the Montagnards Orleanists in masquerade. His courageous attitude at the trial of Louis XVI., when he supported the "appeal to the people," only served still further to discredit the Girondists. He defended them, however, to the last with great courage, if with little discretion; and after the crisis of the 31st of May 1793 he shared the perils of the party who fled from Paris (see Girondists). His wife, "Lodoïska," who had actively cooperated in his propaganda, was also in danger.

After the fall of Robespierre, he was recalled to the Convention, when he was instrumental in bringing Carrier and the others responsible for the *Noyades* of Nantes to justice. His influence was now considerable; he was elected a member of the

Committee of the Constitution, president of the Assembly, and member of the Committee of Public Safety, against the overgrown power of which he had in earlier days protested. His hatred of the Mountain had not made him reactionary; he was soon regarded as one of the mainstays of the "Jacobins," and *La Sentinelle* reappeared, under his auspices, preaching union among republicans. Under the Directory (1795) he was elected a member of the Council of Five Hundred, of which he was secretary, and also a member of the Institute. Meanwhile he had returned to his old trade and set up a bookseller's shop in the Palais Royal. But, in spite of the fact that he had once more denounced the Jacobins in *La Sentinelle*, his name had become identified with all that the combative spirits of the *jeunesse dorée* most disliked; his shop was attacked by the "young men" with cries of "*À bas la Loupe, à bas la belle Lodoïska, à bas les gardes du corps de Louvet!*" he and his wife were insulted in the streets and the theatres: "*À bas les Louvets et les Louvetants!*" and he was compelled to leave Paris. The Directory appointed him to the consulship at Palermo, but he died on the 25th of August 1797 before taking up his post.

In 1795 Louvet published a portion of his Memoirs under the title of *Quelques notices pour l'histoire et le récit de mes périls depuis le 31 mai 1793*. They were mainly written in the various hiding-places in which Louvet took refuge, and they give a vivid picture of the sufferings of the proscribed Girondists. They form an invaluable document for the study of the psychology of the Revolution; for in spite of their considerable literary art, they are artless in their revelation of the mental and moral state of their author, a characteristic type of the honest, sentimental, somewhat hysterical and wholly unbalanced minds nurtured on the abstractions of the *philosophes*. The first complete edition of the *Mémoires de Louvet de Couvrai*, edited, with preface, notes and tables, by F. A. Aulard, was published at Paris in 1889.

LOUVIERS, a town of north-western France, capital of an arrondissement in the department of Eure, 17½ m. S.S.E. of Rouen by road. Pop. (1906) 9449. Louviers is pleasantly situated in a green valley surrounded by wooded hills, on the Eure, which here divides into several branches. The old part of the town, built of wood, stands on the left bank of the river; the more modern portions, in brick and hewn stone, on the right. There are spacious squares, and the place is surrounded by boulevards. The Gothic church of Notre-Dame has a south portal which ranks among the most beautiful works of the kind produced in the 15th century; it contains fine stained glass of the 15th and 16th centuries and other works of art. The hôtel-de-ville, a large modern building, contains a museum and library. The chief industry is cloth and flannel manufacture. There are wool-spinning and fulling mills, thread factories and manufactories of spinning and weaving machinery, and enamel ware; leather-working, dyeing, metal-founding and bell-founding are also carried on. The town is the seat of a sub-prefect and has a court of first instance, a tribunal of commerce, a chamber of arts and manufactures, and a council of trade arbitrators.

Louviers (*Lovera*) was originally a *villa* of the dukes of Normandy and in the middle ages belonged to the archbishops of Rouen; its cloth-making industry first arose in the beginning of the 13th century. It changed hands once and again during the Hundred Years' War, and from Charles VII. it received extensive privileges, and the title of Louviers le Franc for the bravery of its inhabitants in driving the English from Pont de l'Arche, Verneuil and Harcourt. It passed through various troubles successively at the period of the League of the Public Weal under Louis XI., in the religious wars (when the parlement of Rouen sat for a time at Louviers) and in the wars of the Fronde.

See G. Petit, *Hist. de Louviers* (Louviers, 1877).

LOUVOIS, FRANÇOIS MICHEL LE TELLIER, Marquis de (1641-1691), French statesman, war minister of Louis XIV., was born at Paris on the 18th of January 1641. His father, Michel le Tellier (*q.v.*), married him to an heiress, the marquise de Courtenvaux, and instructed him in the management of state business. The young man won the king's confidence, and in 1666 he succeeded his father as war minister. His talents were perceived by Turenne in the war of Devolution (1667-68), who gave him instruction in the art of providing armies. After the peace of Aix-la-Chapelle, Louvois devoted himself to organizing the French army. The years between 1668 and 1672, says Camille Rousset, "were years of preparation, when Lionne was labouring with all his might to find allies, Colbert to find money, and Louvois soldiers for Louis." The work of Louvois in these years is bound up with the historical development of the French army and of armies in general (see Army). Here need only be mentioned Louvois's reorganization of the military orders of merit, his foundation of the Hôtel des Invalides, and the almost forcible enrolment of the nobility and gentry of France, in which Louvois carried out part of Louis's measures for curbing the spirit of independence by service in the army or at court. The success of his measures is to be seen in the victories of the great war of 1672-78. After the peace of Nijmwegen Louvois was high in favour, his father had been made chancellor, and the influence of Colbert was waning. The ten years of peace between 1678 and 1688 were distinguished in French history by the rise of Madame de Maintenon, the capture of Strassburg and the revocation of the Edict of Nantes, in all of which Louvois bore a prominent part. The surprise of Strassburg in 1681 in time of peace was not only planned but executed by Louvois and Monclar. A saving clause in the revocation of the Edict of Nantes, which provided for some liberty of conscience, if not of worship, Louvois sharply annulled with the phrase "Sa majesté veut qu'on fasse sentir les dernières rigueurs à ceux qui ne voudront pas se faire de sa religion." He claimed also the credit of inventing the dragonnades, and mitigated the rigour of the soldiery only in so far as the licence accorded was prejudicial to discipline. Discipline, indeed, and complete subjection to the royal authority was the political faith of Louvois. Colbert died in 1683, and had been replaced by Le Pelletier, an adherent of Louvois, in the controller-generalship of finances, and by Louvois himself in his ministry for public buildings, which he took that he might be the minister able to gratify the king's two favourite pastimes, war and building. Louvois was able to superintend the successes of the first years of the war of the League of Augsburg, but died suddenly of apoplexy after leaving the king's cabinet on July 16, 1691. His sudden death caused a suspicion of poison. Louvois was one of the greatest of the rare class of great war ministers. French history can only point to Carnot as his equal. Both had to organize armies out of old material on a new system, both were admirable contrivers of campaigns, and both devoted themselves to the material well-being of the soldiers. In private life and in the means employed for gaining his ends, Louvois was unscrupulous and shameless.

The principal authority for Louvois's life and times is Camille Rousset's *Histoire de Louvois* (Paris, 1872), a great work founded on the 900 volumes of his despatches at the Depôt de la Guerre. Saint Simon from his class prejudices is hardly to be trusted, but Madame de Sévigné throws many side-lights on his times. *Testament politique de Louvois* (1695) is spurious.

LOUŸS, PIERRE (1870-), French novelist and poet, was born in Paris on the 10th of December 1870. When he was nineteen he founded a review, *La Conque*, which brought him into contact with the leaders of the Parnassians, and counted Swinburne, Maeterlinck, Mallarmé and others among its contributors. He won notoriety by his novel *Aphrodite* (1896), which gave a vivid picture of Alexandrian morals at the beginning of the Christian era. His *Chansons de Bilitis, roman lyrique* (1894), which purported to be a translation from the Greek, is a glorification of Sapphic love, which in subject-matter is objectionable in the highest degree; but its delicate decadent prose is typical of a modern French literary school, and some of the "songs" were set to music by Debussy and others. Later books are: *La Femme et le pantin* (1898); *Les Aventures du roi Pausole* (1900); *Sanguines* (1903); *Archipel* (1906). Louÿs married in 1899 Louise de Heredia, younger daughter of the poet.

LOVAT, SIMON FRASER, 12TH BARON (*c.* 1667-1747), Scottish chief and Jacobite intriguer, was born about 1667 and was the second son of Thomas Fraser, third son of the 8th Lord Lovat. The barony of Lovat dates from about 1460, in the person of Hugh Fraser, a descendant of Simon Fraser (killed at Halidon Hill in 1338) who acquired the tower and fort of Lovat near Beauly, Inverness-shire, and from whom the clan Fraser was called "Macshimi" (sons of Simon). Young Simon was educated at King's College, Aberdeen, and his correspondence afterwards gives proof, not only of a command of good English and idiomatic French, but of such an acquaintance with the Latin classics as to leave him never at a loss for an apt quotation from Virgil or Horace. Whether Lovat ever felt any real loyalty to the Stuarts or was actuated by self-interest it is difficult to determine, but that he was a born traitor and deceiver there can be no doubt. One of his first acts on leaving college was to recruit three hundred men from his clan to form part of a regiment in the service of William and Mary, in which he himself was to hold a command,—his object being to have a body of well-trained soldiers under his influence, whom at a moment's notice he might carry over to the interest of King James. Among other outrages in which he was engaged about this time was a rape and forced marriage committed on the widow of the 10th Lord Lovat with the view apparently of securing his own succession to the estates; and it is a curious instance of influence that, after being subjected by him to horrible ill-usage, she is said to have become seriously attached to him. A prosecution, however, having been instituted against him by Lady Lovat's family, Simon retired first to his native strongholds in the Highlands, and afterwards to France, where he found his way in July 1702 to the court of St Germain. In 1699, on his father's death, he assumed the title of Lord Lovat. One of his first steps towards gaining influence in France seems to have been to announce his conversion to the Catholic faith. He then proceeded to put the project of restoring the exiled family into a practical shape. Hitherto nothing seems to have been known among the Jacobite exiles of the efficiency of the Highlanders as a military force. But Lovat saw that, as they were the only part of the British population accustomed to the independent use of arms, they could be at once put in action against the reigning power. His plan therefore was to land five thousand French troops at Dundee, where they might reach the north-eastern passes of the Highlands in a day's march, and be in a position to divert the British troops till the Highlands should have time to rise. Immediately afterwards five hundred men were to land on the west coast, seize Fort William or Inverlochy, and thus prevent the access of any military force from the south to the central Highlands. The whole scheme indicates Lovat's sagacity as a military strategist, and his plan was continuously kept in view in all future attempts of the Jacobites, and finally acted on in the outbreak of 1745. The advisers of the Pretender seem to have been either slow to trust their coadjutor or to comprehend his project. At last, however, he was despatched (1703) on a secret mission to the Highlands to sound those of the chiefs who were likely to rise, and to ascertain what forces they could bring into the field. He found, however, that there was little disposition to join the rebellion, and he then apparently made up his mind to secure his own safety by revealing all that he knew to the government of Queen Anne. He persuaded the duke of Queensberry that his rival, the duke of Atholl, was in the Jacobite plot, and that if Queensberry supported him he could obtain evidence of this at St Germain. Queensberry foolishly entered into the intrigue with him against Atholl, but when Lovat had gone to France with a pass from Queensberry the affair was betrayed to Atholl by Robert Ferguson, and resulted in Queensberry's discomfiture. The story is obscure, and is complicated by partisanship on either side; but Lovat was certainly playing a double game. His agility, however, was not remunerative. On returning to Paris suspicions got afloat as to Lovat's proceedings, and he was imprisoned in the castle of Angoulême. He remained nearly ten years under supervision, till in November 1714 he made his escape to England. For some twenty-five years after this he was chiefly occupied in lawsuits for the recovery of his estates and the re-establishment of his fortune, in both of which objects he was successful. The intervals of his leisure were filled up by Jacobite and Anti-Jacobite intrigues, in which he seems to have alternately, as suited his interests, acted the traitor to both parties. But he so far obtained the confidence of the government as to secure the appointments of sheriff of Inverness and of colonel of an independent company. His disloyal practices, however, soon led to his being suspected; and he was deprived of both his appointments. When the rebellion of 1745 broke out, Lovat acted with characteristic duplicity. He represented to the Jacobites—what was probably in the main true—that though eager for their success his weak health and advanced years prevented him from joining the standard of the prince in person, while to the Lord President Forbes he professed his cordial attachment to the existing state of things, but lamented that his son, in spite of all his remonstrances, had joined the Pretender, and succeeded in taking with him a strong force from the clan of the Frasers. The truth was that the lad was unwilling to go, but was compelled by his father. Lovat's false professions of fidelity did not long deceive the government, and after the battle of Culloden he was obliged to retreat to the Highlands, after seeing from a distant height his castle of Dounie burnt by the royal army. Even then, broken down by disease and old age, carried on a litter and unable to move without assistance, his mental resources did not fail; and in a conference with several of the Jacobite leaders he proposed that they should raise a body of three thousand men, which would be enough to make their mountains impregnable, and at length force the government to give them advantageous terms. The project was not carried out, and Lovat, after enduring incredible hardships in his wanderings, was at last arrested on an island in Loch Morar. He was conveyed in a litter to London, and after a trial of five days sentence of death was pronounced on the 19th of March 1747. His execution took place on the 9th of April. His conduct to the last was dignified and even cheerful. Just before submitting his head to the block he repeated the line from Horace—

"Dulce et decorum est pro patria mori."

His son SIMON FRASER, Master of Lovat (1726-1782) (not to be confused with another Simon Fraser who saw somewhat similar service and was killed in 1777 at the battle of Saratoga), was a soldier, who at the beginning of the Seven Years' War raised a corps of Fraser Highlanders for the English service, and at the outbreak of the American War of Independence raised another regiment which took a prominent part in it. He fought under Wolfe in Canada, and also in Portugal, and rose to be a British major-general. The family estates were restored to him, but the title was not revived till 1837. On his death without issue, and also of his successor, his half-brother Archibald Campbell Fraser (1736-1815), the Lovat estates passed to the Frasers of Strichen, Aberdeenshire. The 16th Baron Lovat (b. 1871) raised a corps of mounted infantry (Lovat's Scouts) in the Boer war of 1899-1902.

See *Memoirs of Lord Lovat* (1746 and 1767); J. Hill Burton, *Life of Simon, Lord Lovat* (1847); J. Anderson, *Account of the Family of Frizell or Fraser* (Edinburgh, 1825); A. Mackenzie, *History of the Frasers of Lovat* (Inverness, 1896); Mrs A. T. Thomson, *Memoirs of the Jacobites* (1845-6); and W. C. Mackenzie, *Simon Fraser, Lord Lovat* (1908).

LOVE-BIRD, a name somewhat indefinitely bestowed, chiefly by dealers and their customers, on some of the smaller short-tailed parrots, from the affection which examples of opposite sexes exhibit towards each other. By many ornithologists the birds thus named, brought almost entirely from Africa and South America, have been retained in a single genus, *Psittacula*, though those belonging to the former country were by others separated as *Agapornis*. This separation, however, was neither generally approved nor easily justified, until Garrod (*Proc. Zool. Society*, 1874, p. 593) assigned good anatomical ground, afforded by the structure of the carotid artery, for regarding the two groups as distinct, and thus removed the puzzle presented by the geographical distribution of the species of *Psittacula* in a large sense, though Huxley (*op. cit.* 1868, p. 319) had suggested one way of meeting the difficulty. As the genus is now restricted, only one of the six species of *Psittacula* enumerated in the *Nomenclator Avium* of Sclater and Salvin is known to be found outside the Neotropical Region, the exception being the Mexican *P. cyanopygia*, and not one of the seven recognized by the same authors as forming the nearly allied genus *Urochroma*. On the other hand, of *Agapornis*, from which the so-called genus *Poliopsitta* can scarcely be separated, five if not six species are known, all belonging to the Ethiopian Region, and all but one, *A. cana* (which is indigenous to Madagascar, and thence has been widely disseminated), are natives of Africa. In this group probably comes also *Psittinus*, with a single species from the Malayan Subregion. One of the birds most commonly called love-birds, but with no near relationship to any of the above, being a long-tailed though very small parrot, is the budgerigar (*Melopsittacus undulatus*) now more familiar in Europe than most native birds, as it is used to “tell fortunes” in the streets, and is bred by hundreds in aviaries. Its native country is Australia.

(A. N.)

LOVEDALE, a mission station in the Victoria East division of the Cape province, South Africa. It lies 1720 ft. above the sea on the banks of the Tyumie (Chumie) tributary of the Keiskama river, some 2 m. N. of Alice, a town 88 m. N.W. by rail of East London. The station was founded in 1824 by the Glasgow Missionary Society and was named after Dr John Love, one of the leading members of, and at the time secretary to, the society. The site first chosen was in the Ncera valley. But in 1834 the mission buildings were destroyed by the Kaffirs. On rebuilding, the station was removed somewhat farther north to the banks of the Tyumie. In 1846 the work at Lovedale was again interrupted, this time by the War of the Axe (see Cape Colony: *History*). On this occasion the buildings were converted into a fort and garrisoned by regular troops. Once more, in 1850, the Kaffirs threatened Lovedale and made an attack on the neighbouring Fort Hare,[1] built during the previous war.

Until 1841 the missionaries had devoted themselves almost entirely to evangelistic work; in that year the Lovedale Missionary Institute was founded by the Rev. W. Govan, who, save for brief intervals, continued at its head until 1870. He was then succeeded by the Rev. James Stewart (1831-1905), who had joined the mission in 1867, having previously (1861-1863), and partly in company with David Livingstone, explored the Zambezi regions. To Stewart, who remained at the head of the institute till his death, is due the existing organization at Lovedale. The institute, in addition to its purely church work—in which no sectarian tests are allowed—provides for the education of natives of both sexes in nearly all branches of learning (Stewart discontinued the teaching of Greek and Latin, adopting English as the classic); it also takes European scholars, no colour distinction being allowed in any department of the work. The institute gives technical training in many subjects and maintains various industries, including such diverse enterprises as farming and printing-works. It also maintains a hospital. The school buildings rival in accommodation and completeness those of the schools in large English cities. The sum paid in fees by scholars (of whom fully nine-tenths were Kaffirs) in the period 1841-1908 was £84,000. The educational and industrial methods initiated at Lovedale have been widely adopted by other missionary bodies. Lovedale is now a branch of the work of the United Free Church of Scotland.

See R. Young, *African Wastes Reclaimed and Illustrated in the Story of the Lovedale Mission* (London, 1902); J. Stewart, *Lovedale, Past and Present* (London, 1884), and *Dawn in the Dark Continent* (London, 1903); J. Wells, *Stewart of Lovedale* (London, 1908).

1 This fort was named after Colonel John Hare (d. 1846) of the 27th Regiment, from 1838 lieutenant-governor of the eastern provinces and commander of the first division of the field force in the War of the Axe.

LOVELACE, RICHARD (1618-1658), English poet, was born at Woolwich in 1618. He was a scion of a Kentish family, and inherited a tradition of military distinction, maintained by successive generations from the time of Edward III. His father, Sir William Lovelace, had served in the Low Countries, received the honour of knighthood from James I., and was killed at Grolle in 1628. His brother, Francis Lovelace, the “Colonel Francis” of *Lucasta*, served on the side of Charles I., and defended Caermarthen in 1644. His mother’s family was legal; her grandfather had been chief baron of the exchequer. Richard was educated at the Charterhouse and at Gloucester Hall, Oxford, where he matriculated in 1634. Through the request of one of the queen’s ladies on the royal visit to Oxford he was made M.A., though only in his second year at the university. Lovelace’s fame has been kept alive by a few songs and the romance of his career, and his poems are commonly spoken of as careless improvisations, and merely the amusements of an active soldier. But the unhappy course of his life gave him more leisure for verse-making than opportunity of soldiering. Before the outbreak of the civil war in 1642 his only active service was in the bloodless expedition which ended in the Pacification of Berwick in 1640. On the conclusion of peace he entered into possession of the family estates at Bethersden, Canterbury, Chart and Halden in Kent. By that time he was one of the most distinguished of the company of courtly poets gathered round Queen Henrietta, who were influenced as a school by contemporary French writers of *vers de société*. He wrote a comedy, *The Scholar*, when he was sixteen, and a tragedy, *The Soldier*, when he was twenty-one. From what he says of Fletcher, it would seem that this dramatist was his model, but only the prologue and epilogue to his comedy have been preserved. When the rupture between king and parliament took place, Lovelace was committed to the Gatehouse at Westminster for presenting to the Commons in 1642 a petition from Kentish royalists in the king’s favour. It was then that he wrote his most famous song, “To Althea from Prison.” He was liberated, says Wood, on bail of £40,000 (more probably £4000), and throughout the civil war was a prisoner on parole, with this security in the hands of his enemies. He contrived, however, to render considerable service to the king’s cause. He provided his two

brothers with money to raise men for the Royalist army, and befriended many of the king's adherents. He was especially generous to scholars and musicians, and among his associates in London were Henry Lawes and John Gamble, the Cottons, Sir Peter Lely, Andrew Marvell and probably Sir John Suckling. He joined the king at Oxford in 1645, and after the surrender of the city in 1646 he raised a regiment for the service of the French king. He was wounded at the siege of Dunkirk, and with his brother Dudley, who had acted as captain in his brother's command, returned to England in 1648. It is not known whether the brothers took any part in the disturbances in Kent of that year, but both were imprisoned at Petre House in Aldersgate. During this second imprisonment he collected and revised for the press a volume of occasional poems, many if not most of which had previously appeared in various publications. The volume was published in 1649 under the title of *Lucasta*, his poetical name—contracted from *Lux Casta*—for a lady rashly identified by Wood as Lucy Sacheverell, who, it is said, married another during his absence in France, on a report that he had died of his wounds at Dunkirk. The last ten years of Lovelace's life were passed in obscurity. His fortune had been exhausted in the king's interest, and he is said to have been supported by the generosity of friends. He died in 1658 "in a cellar in Longacre," according to Aubrey, who, however, possibly exaggerates his poverty. A volume of Lovelace's *Posthume Poems* was published in 1659 by his brother Dudley. They are of inferior merit to his own collection.

The world has done no injustice to Lovelace in neglecting all but a few of his modest offerings to literature. But critics often do him injustice in dismissing him as a gay cavalier, who dashed off his verses hastily and cared little what became of them. It is a mistake to class him with Suckling; he has neither Suckling's easy grace nor his reckless spontaneity. We have only to compare the version of any of his poems in *Lucasta* with the form in which it originally appeared to see how fastidious was his revision. In many places it takes time to decipher his meaning. The expression is often elliptical, the syntax inverted and tortuous, the train of thought intricate and discontinuous. These faults—they are not of course to be found in his two or three popular lyrics, "Going to the Wars," "To Althea from Prison," "The Scrutiny"—are, however, as in the case of his poetical master, Donne, the faults not of haste but of over-elaboration. His thoughts are not the first thoughts of an improvisatore, but thoughts ten or twenty stages removed from the first, and they are generally as closely packed as they are far-fetched.

His poems were edited by W. C. Hazlitt in 1864.

LOVELL, FRANCIS LOVELL, Viscount (1454-1487), supporter of Richard III., was son of John, 8th Baron Lovell. As a young man he served under Richard of Gloucester in the expedition to Scotland in 1480. After the death of Edward IV. he became one of his patron's strongest supporters. He had been created a viscount on the 4th of January 1483, and whilst still Protector Richard made him Chief Butler. As soon as Richard became king, Lovell was promoted to be Lord Chamberlain. Lovell helped in the suppression of Buckingham's rebellion, and as one of Richard's most trusted ministers was gibbeted in Collingbourne's couplet with Catesby and Ratcliffe:—

"The catte, the ratte and Lovell our dogge
Rulyth all England under a hogge."

He had command of the fleet which was to have stopped Henry Tudor's landing in 1485, but fought for Richard at Bosworth and after the battle fled to sanctuary at Colchester. Thence he escaped next year to organize a dangerous revolt in Yorkshire. When that failed he fled to Margaret of Burgundy in Flanders. As a chief leader of the Yorkist party he had a foremost part in Lambert Simnel's enterprise. With John de la Pole, earl of Lincoln, he accompanied the pretender to Ireland and fought for him at Stoke on the 16th of June 1487. He was seen escaping from the battle, but was never afterwards heard of; Bacon relates that according to one report he lived long after in a cave or vault (*Henry VII.*, p. 37, ed. Lumby). More than 200 years later, in 1708, the skeleton of a man was found in a secret chamber in the family mansion at Minster Lovell in Oxfordshire. It is supposed that Francis Lovell had hidden himself there and died of starvation.

Collingbourne's couplet is preserved by Fabyan, *Chronicle*, p. 672. For the discovery at Minster Lovell see *Notes and Queries*, 2nd ser. i. and 5th ser. x.

(C. L. K.)

LOVER, SAMUEL (1797-1868), Irish novelist, artist, songwriter and musician, was born in Dublin on the 24th of February 1797. His father was a stockbroker. Lover began life as an artist, and was elected in 1828 a member of the Royal Hibernian Academy—a body of which two years afterwards he became secretary. He acquired repute as a miniature painter, and a number of the local aristocracy sat to him for their portraits. His love for music showed itself at an early age. At a dinner given to the poet Tom Moore in 1818 Lover sang one of his own songs, which elicited special praise from Moore. One of his best-known portraits was that of Paganini, which was exhibited at the Royal Academy. He attracted attention as an author by his *Legends and Stories of Ireland* (1832), and was one of the first writers for the *Dublin University Magazine*. He went to London about 1835, where, among others, he painted Lord Brougham in his robes as lord chancellor. His gifts rendered him popular in society; and he appeared often at Lady Blessington's evening receptions. There he sang several of his songs, which were so well received that he published them (*Songs and Ballads*, 1839). Some of them illustrated Irish superstitions, among these being "Rory O'More," "The Angel's Whisper," "The May Dew" and "The Four-leaved Shamrock." In 1837 appeared *Rory O'More, a National Romance*, which at once made him a reputation as a novelist; he afterwards dramatized it for the Adelphi Theatre, London. In 1842 was published his best-known work, *Handy Andy, an Irish Tale*. Meanwhile his pursuits had affected his health; and in 1844 he gave up writing for some time, substituting instead public entertainments, called by him "Irish Evenings," illustrative of his own works. These were successful both in Great Britain and in America. In addition to publishing numerous songs of his own, Lover edited a collection entitled *The Lyrics of Ireland*, which appeared in 1858. He died on the 6th of July 1868. Besides the novels already mentioned he wrote *Treasure Trove* (1844), and *Metrical Tales and Other Poems* (1860).

His *Life* was written in 1874 by Bayle Bernard.

LOVERE, a town of Lombardy, Italy, in the province of Bergamo, at the north-west end of the Lago d'Iseo, 522 ft. above sea-level. Pop. (1901) 3306. It is a picturesque town, the houses having the overhanging wooden roofs of Switzerland united with the heavy stone arcades of Italy, while the situation is beautiful, with the lake in front and the semicircle of bold mountains behind. The church of Santa Maria in Valvendra, built in 1473, has frescoes by Floriano Ferramola of Brescia (d. 1528). The Palazzo Tadini contains a gallery of old pictures, some sculptures by Benzoni and Canova, and a zoological collection. Lovere possesses a silk-spinning factory, and the Stablimento Metallurgico Gregorini, a large iron-work and cannon foundry, employs 1600 workmen. Lovere is reached by steamer from Sarnico at the south end of the lake, and there is a steam tramway through the Val Camonica, which is highly cultivated, and contains iron- and silk-works. From Cividate, the terminus, the road goes on to Edolo (2290 ft.), whence passes lead into Tirol and the Valtellina.

LOW, SETH (1850-), American administrator and educationist, was born in Brooklyn, New York, on the 18th of January 1850. He studied in the Polytechnic Institute of Brooklyn and in Columbia University, where he graduated in 1870. He became a clerk (1870) and then a partner (1875) in his father's tea and silk-importing house, A. A. Low & Brothers, which went out of business in 1888. In 1878 he organized, and became president of, the Brooklyn Bureau of Charities. In 1882-1886 he was mayor of the city of Brooklyn, being twice elected on an independent ticket; and by his administration of his office he demonstrated that a rigid "merit" civil-service system was practicable—in September 1884 the first municipal civil-service rules in the United Service were adopted in Brooklyn. He was president of Columbia University from 1890 to 1901, and did much for it by his business administration, his liberality (he gave $1,000,000 for the erection of a library) and his especial interest in the department of Political Science. In his term Columbia became a well-organized and closely-knit university. Its official name was changed from Columbia College to Columbia University. It was removed to a new site on Morningside Heights, New York City. The New York College for the Training of Teachers became its Teachers' College of Columbia; a Faculty of Pure Science was added; the Medical School gave up its separate charter to become an integral part of the university; Barnard College became more closely allied with the university; relations were entered into between the university and the General, Union and Jewish theological seminaries of New York City and with Cooper Union, the Metropolitan Museum of Fine Arts and the American Museum of Natural History; and its faculty and student body became less local in character. Dr Low was a delegate to the Hague Peace Conference in 1899. He was prominent among those who brought about the chartering of Greater New York in 1897, and in this year was an unsuccessful candidate, on an independent ticket, for mayor of New York City; in 1900, on a fusion ticket, he was elected mayor and served in 1901-1903.

LOW, WILL HICOK (1853-), American artist and writer on art, was born at Albany, New York, on the 31st of May 1853. In 1873 he entered the atelier of J. L. Gérôme in the École des Beaux Arts at Paris, subsequently joining the classes of Carolus-Duran, with whom he remained until 1877. Returning to New York, he became a member of the Society of American Artists in 1878 and of the National Academy of Design in 1890. His pictures of New England types, and illustrations of Keats, brought him into prominence. Subsequently he turned his attention to decoration, and executed panels and medallions for the Waldorf-Astoria Hotel, New York, a panel for the Essex County Court House, Newark, New Jersey, panels for private residences and stained-glass windows for various churches, including St Paul's Methodist Episcopal Church, Newark, N.J. He was an instructor in the schools of Cooper Union, New York, in 1882-1885, and in the school of the National Academy of Design in 1889-1892. Mr Low, who is known to a wider circle as the friend of R. L. Stevenson, published some reminiscences, *A Chronicle of Friendships, 1873-1900* (1908). In 1909 he married Mary (Fairchild), formerly the wife of the sculptor MacMonnies.

LOWBOY, a small table with one or two rows of drawers, so called in contradistinction to the tallboy, or double chest of drawers. Both were favourite pieces of the 18th century, both in England and America; the lowboy was most frequently used as a dressing-table, but sometimes as a side-table. It is usually made of oak, walnut or mahogany, with brass handles and escutcheons. The more elegant examples of the Chippendale period have cabriole legs, claw-and-ball feet and carved knees, and are sometimes sculptured with the favourite shell motive beneath the centre drawer.

LOW CHURCHMAN, a term applied to members of the Church of England or its daughter churches who, while accepting the hierarchical and sacramental system of the Church, do not consider episcopacy as essential to the constitution of the Church, reject the doctrine that the sacraments confer grace *ex opere operato* (*e.g.* baptismal regeneration) and lay stress on the Bible as the sole source of authority in matters of faith. They thus differ little from orthodox Protestants of other denominations, and in general are prepared to co-operate with them on equal terms.

The name was used in the early part of the 18th century as the equivalent of "Latitudinarian," *i.e.* one who was prepared to concede much latitude in matters of discipline and faith, in contradistinction to "High Churchman," the term applied to those who took a high view of the exclusive authority of the Established Church, of episcopacy and of the sacramental system. It subsequently fell into disuse, but was revived in the 19th century when the Tractarian movement had brought the term "High Churchman" into vogue again in a modified sense, *i.e.* for those who exalted the idea of the Catholic Church and the sacramental system at the expense both of the Establishment and of the exclusive authority of Scripture. "Low Churchman" now became the equivalent of "Evangelical," the designation of the movement, associated with the name of Simeon, which

laid the chief stress on the necessity of personal "conversion." "Latitudinarian" gave place at the same time to "Broad Churchman," to designate those who lay stress on the ethical teaching of the Church and minimize the value of orthodoxy. The revival of pre-Reformation ritual by many of the High Church clergy led to the designation "ritualist" being applied to them in a somewhat contemptuous sense; and "High Churchman" and "Ritualist" have often been wrongly treated as convertible terms. Actually many High Churchmen are not Ritualists, though they tend to become so. The High Churchman of the "Catholic" type is further differentiated from the "old-fashioned High Churchman" of what is sometimes described as the "high and dry" type of the period anterior to the Oxford Movement.

LOWE, SIR HUDSON (1769-1844), English general, was the son of an army surgeon, John Lowe, and was born at Galway on the 28th of July 1769. His mother was a native of that county. His childhood was spent in various garrison towns but he was educated chiefly at Salisbury grammar school. He obtained a post as ensign in the East Devon Militia before his twelfth year, and subsequently entered his father's regiment, the 50th, then at Gibraltar (1787) under Governor-General O'Hara. After the outbreak of war with France early in 1793, Lowe saw active service successively in Corsica, Elba, Portugal and Minorca, where he was entrusted with the command of a battalion of Corsican exiles, called The Corsican Rangers. With these he did good work in Egypt in 1800-1801. After the peace of Amiens, Lowe, now a major, became assistant quartermaster-general; but on the renewal of war with France in 1803 he was charged, as lieutenant-colonel, to raise the Corsican battalion again and with it assisted in the defence of Sicily. On the capture of Capri he proceeded thither with his battalion and a Maltese regiment; but in October 1808 Murat organized an attack upon the island, and Lowe, owing to the unsteadiness of the Maltese troops and the want of succour by sea, had to agree to evacuate the island. The terms in which Sir William Napier and others have referred to Lowe's defence of Capri are unfair. His garrison consisted of 1362 men, while the assailants numbered between 3000 and 4000. In the course of the year 1809 Lowe and his Corsicans helped in the capture of Ischia and Procida, as well as of Zante, Cephalonia and Cerigo. For some months he acted as governor of Cephalonia and Ithaca, and later on of Santa Maura. He returned to England in 1812, and in January 1813 was sent to inspect a Russo-German legion then being formed, and he accompanied the armies of the allies through the campaigns of 1813 and 1814, being present at thirteen important battles. He won praise from Blücher and Gneisenau for his gallantry and judgment. He was chosen to bear to London the news of the first abdication of Napoleon in April 1814. He was then knighted and became major-general; he also received decorations from the Russian and Prussian courts. Charged with the duties of quartermaster-general of the army in the Netherlands in 1814-1815, he was about to take part in the Belgian campaign when he was offered the command of the British troops at Genoa; but while still in the south of France he received (on the 1st of August 1815) news of his appointment to the position of custodian of Napoleon, who had surrendered to H.M.S. "Bellerophon" off Rochefort. Lowe was to be governor of St Helena, the place of the ex-emperor's exile.

On his arrival there at Plantation House he found that Napoleon had already had scenes with Admiral Cockburn, of H.M.S. "Northumberland," and that he had sought to induce the former governor, Colonel Wilks, to infringe the regulations prescribed by the British government (see *Monthly Review*, January 1901). Napoleon and his followers at Longwood pressed for an extension of the limits within which he could move without surveillance, but it was not in Lowe's power to grant this request. Various matters, in some of which Lowe did not evince much tact, produced friction between them. The news that rescue expeditions were being planned by the Bonapartists in the United States led to the enforcement of somewhat stricter regulations in October 1816, Lowe causing sentries to be posted round Longwood garden at sunset instead of at 9 P.M. This was his great offence in the eyes of Napoleon and his followers. Hence their efforts to calumniate Lowe, which had a surprising success. O'Meara, the British surgeon, became Napoleon's man, and lent himself to the campaign of calumny in which Las Cases and Montholon showed so much skill. In one of the suppressed passages of his *Journal* Las Cases wrote that the exiles had to "reduce to a system our demeanour, our words, our sentiments, even our privations, in order that we might thereby excite a lively interest in a large portion of the population of Europe, and that the opposition in England might not fail to attack the ministry." As to the privations, it may be noted that Lowe recommended that the government allowance of £8000 a year to the Longwood household should be increased by one-half. The charges of cruelty brought against the governor by O'Meara and others have been completely refuted; and the most that can be said against him is that he was occasionally too suspicious in the discharge of his duties. After the death of Napoleon in May 1821, Lowe returned to England and received the thanks of George IV. On the publication of O'Meara's book he resolved to prosecute the author, but, owing to an unaccountable delay, the application was too late. This fact, together with the reserved behaviour of Lowe, prejudiced the public against him, and the government did nothing to clear his reputation. In 1825-1830 he commanded the forces in Ceylon, but was not appointed to the governorship when it fell vacant in 1830. In 1842 he became colonel of his old regiment, the 50th; he also received the G.C.M.G. He died in 1844.

See W. Forsyth, *History of the Captivity of Napoleon at St Helena* (3 vols., London, 1853); Gourgaud, *Journal inédite de Sainte-Hélène* (1815-1818; 2 vols., Paris, 1899); R. C. Seaton, *Napoleon's Captivity in relation to Sir Hudson Lowe* (London, 1903); Lieut.-Col. Basil Jackson, *Notes and Reminiscences of a Staff-Officer* (London, 1903); the earl of Rosebery, *Napoleon; the Last Phase* (London 1900); J. H. Rose, *Napoleonic Studies* (London, 1904).

(J. HL. R.)

LÖWE, JOHANN KARL GOTTFRIED (1796-1869), German composer, was born at Löbejün, near Halle, on the 30th of November 1796, and was a choir-boy at Köthen from 1807 to 1809, when he went to the Franke Institute at Halle, studying music with Türk. The beauty of Löwe's voice brought him under the notice of Madame de Staël, who procured him a pension from Jérôme Bonaparte, then king of Westphalia; this stopped in 1813, on the flight of the king. He entered the University of Halle as a theological student, but was appointed cantor at Stettin in 1820, and director of the town music in 1821, in which year he married Julie von Jacob, who died in 1823. His second wife, Auguste Lange, was an accomplished singer, and they appeared together in his oratorio performances with great success. He retained his office at Stettin for 46 years, when, after a stroke of paralysis, he was somewhat summarily dismissed. He retired to Kiel, and died on the 20th of April 1869. He undertook many concert tours during his tenure of the post at Stettin, visiting Vienna, London, Sweden, Norway and Paris. His high soprano voice (he could sing the music of the "Queen of Night" in *Die Zauberflöte* as a boy) had developed into a fine tenor. Löwe was a voluminous composer, and wrote five operas, of which only one, *Die drei Wünsche*, was performed at Berlin in 1834, without much success; seventeen oratorios, many of them for male voices unaccompanied, or with short instrumental interludes only; choral ballads, cantatas, three string quartets, a pianoforte trio; a work for clarinet and piano, published posthumously; and some piano solos. But the branch of his art by which he is remembered, and in which he must be admitted to have attained perfection, is the solo ballad with pianoforte accompaniment. His treatment of long narrative poems, in a clever mixture of the dramatic and lyrical styles, was undoubtedly modelled on the ballads of Zumsteeg,

and has been copied by many composers since his day. His settings of the “Erlkönig” (a very early example), “Archibald Douglas,” “Heinrich der Vogler,” “Edward” and “Die Verfallene Mühle,” are particularly fine.

LOWELL, ABBOTT LAWRENCE (1856-), American educationalist, was born in Boston, Massachusetts on the 13th of December 1856, the great-grandson of John Lowell, the “Columella of New England,” and on his mother’s side, a grandson of Abbott Lawrence. He graduated at Harvard College in 1877, with highest honours in mathematics; graduated at the Harvard Law School in 1880; and practised law in 1880-1897 in partnership with his cousin, Francis Cabot Lowell (b. 1855), with whom he wrote *Transfer of Stock in Corporations* (1884). In 1897 he became lecturer and in 1898 professor of government at Harvard, and in 1909 succeeded Charles William Eliot as president of the university. In the same year he was president of the American Political Science Association. In 1900 he had succeeded his father, Augustus Lowell (1830-1901), as financial head of the Lowell Institute of Boston. He wrote *Essays on Government* (1889), *Governments and Parties in Continental Europe* (2 vols., 1896), *Colonial Civil Service* (1900; with an account by H. Morse Stephens of the East India College at Haileybury), and *The Government of England* (2 vols., 1908).

His brother, Percival Lowell (1855-), the well-known astronomer, graduated at Harvard in 1876, lived much in Japan between 1883 and 1893, and in 1894 established at Flagstaff, Arizona, the Lowell Observatory, of whose *Annals* (from 1898) he was editor. In 1902 he became non-resident professor of astronomy at the Massachusetts Institute of Technology. He wrote several books on the Far East, including *Chosön* (1885), *The Soul of the Far East* (1886), *Noto, an Unexplored Corner of Japan* (1891), and *Occult Japan* (1895), but he is best known for his studies of the planet Mars—he wrote *Mars* (1895), *Mars and Its Canals* (1907), and *Mars, the Abode of Life* (1908)—and his contention that the “canals” of Mars are a sign of life and civilization on that planet (see Mars). He published *The Evolution of Worlds* in 1909.

LOWELL, CHARLES RUSSELL (1835-1864), American soldier, was born on the 2nd of January 1835 in Boston, Massachusetts. His mother, Anna Cabot Jackson Lowell (1819-1874), a daughter of Patrick Tracy Jackson, married Charles Russell Lowell, a brother of James Russell Lowell; she wrote verse and books on education. Her son graduated at Harvard in 1854, worked in an iron mill in Trenton, New Jersey, for a few months in 1855, spent two years abroad, and in 1858-1860 was local treasurer of the Burlington & Missouri river railroad. In 1860 he took charge of the Mount Savage Iron Works, in Cumberland, Maryland. He entered the Union army in June 1861 (commission May 14) as captain of the 3rd (afterwards 6th) U.S. cavalry; on the 15th of April 1863 he became colonel of the 2nd Massachusetts cavalry; he was wounded fatally at Cedar Creek on the 19th of October 1864, when he was promoted brigadier-general of U.S. Volunteers, and died on the next day at Middletown, Va. Lowell married in October 1863, Josephine Shaw (1843-1905), a sister of Colonel R. G. Shaw. Her home when she was married was on Staten Island, and she became deeply interested in the social problems of New York City. She was a member of the State Charities Aid Society, and from 1877 to 1889 was a member of the New York State Board of Charities, being the first woman appointed to that board. She founded the Charity Organization Society of New York City in 1882, and wrote *Public Relief and Private Charity* (1884) and *Industrial Arbitration and Conciliation* (1893).

See Edward E. Emerson (ed.), *The Life and Letters of Charles Russell Lowell* (Boston, 1907).

LOWELL, JAMES RUSSELL (1819-1891), American author and diplomatist, was born at Elmwood, in Cambridge, Massachusetts, on the 22nd of February 1819, the son of Charles Lowell (1782-1861).[1] On his mother’s side he was descended from the Spences and Traills, who made their home in the Orkney Islands, his great-grandfather, Robert Traill, returning to England on the breaking out of hostilities in 1775. He was brought up in a neighbourhood bordering on the open country, and from his earliest years he found a companion in nature; he was also early initiated into the reading of poetry and romance, hearing Spenser and Scott in childhood, and introduced to old ballads by his mother. He had for schoolmaster an Englishman who held by the traditions of English schools, so that before he entered Harvard College he had a more familiar acquaintance with Latin verse than most of his fellows—a familiarity which showed itself later in his mock-pedantic accompaniment to *The Biglow Papers* and his macaronic poetry. He was a wide reader, but a somewhat indifferent student, graduating at Harvard without special honours in 1838. During his college course he wrote a number of trivial pieces for a college magazine, and shortly after graduating printed for private circulation the poem which his class asked him to write for their graduation festivities.

He was uncertain at first what vocation to choose, and vacillated between business, the ministry, medicine and law. He decided at last to practise law, and after a course at the Harvard law school, was admitted to the bar. While studying for his profession, however, he contributed poems and prose articles to various magazines. He cared little for the law, regarding it simply as a distasteful means of livelihood, yet his experiments in writing did not encourage him to trust to this for support. An unhappy adventure in love deepened his sense of failure, but he became betrothed to Maria White in the autumn of 1840, and the next twelve years of his life were deeply affected by her influence. She was a poet of delicate power, but also possessed a lofty enthusiasm, a high conception of purity and justice, and a practical temper which led her to concern herself in the movements directed against the evils of intemperance and slavery. Lowell was already looked upon by his companions as a man marked by wit and poetic sentiment; Miss White was admired for her beauty, her character and her intellectual gifts, and the two became thus the hero and heroine among a group of ardent young men and women. The first-fruits of this passion was a volume of poems, published in 1841, entitled *A Year’s Life*, which was inscribed by Lowell in a veiled dedication to his future wife, and was a record of his new emotions with a backward glance at the preceding period of depression and irresolution. The betrothal, moreover, stimulated Lowell to new efforts towards self-support, and though nominally maintaining his law office, he threw his energy into the establishment, in company with a friend, Robert Carter, of a literary journal, to which the young men gave the name of *The Pioneer*. It was to open the way to new ideals in literature and art, and the writers to whom Lowell turned for assistance—Hawthorne, Emerson, Whittier, Poe, Story and Parsons, none of them yet possessed of a wide reputation—indicate the acumen of the editor. Lowell himself had already turned his studies in dramatic

and early poetic literature to account in another magazine, and continued the series in *The Pioneer*, besides contributing poems; but after the issue of three monthly numbers, beginning in January 1843, the magazine came to an end, partly because of a sudden disaster which befell Lowell's eyes, partly through the inexperience of the conductors and unfortunate business connexions.

The venture confirmed Lowell in his bent towards literature. At the close of 1843 he published a collection of his poems, and a year later he gathered up certain material which he had printed, sifted and added to it, and produced *Conversations on some of the Old Poets*. The dialogue form was used merely to secure an undress manner of approach to his subject; there was no attempt at the dramatic. The book reflects curiously Lowell's mind at this time, for the conversations relate only partly to the poets and dramatists of the Elizabethan period; a slight suggestion sends the interlocutors off on the discussion of current reforms in church and state and society. Literature and reform were dividing the author's mind, and continued to do so for the next decade. Just as this book appeared Lowell and Miss White were married, and spent the winter and early spring of 1845 in Philadelphia. Here, besides continuing his literary contributions to magazines, Lowell had a regular engagement as an editorial writer on *The Pennsylvania Freeman*, a fortnightly journal devoted to the Anti-Slavery cause. In the spring of 1845 the Lowells returned to Cambridge and made their home at Elmwood. On the last day of the year their first child, Blanche, was born, but she lived only fifteen months. A second daughter, Mabel, was born six months after Blanche's death, and lived to survive her father; a third, Rose, died an infant. Lowell's mother meanwhile was living, sometimes at home, sometimes at a neighbouring hospital, with clouded mind, and his wife was in frail health. These troubles and a narrow income conspired to make Lowell almost a recluse in these days, but from the retirement of Elmwood he sent forth writings which show how large an interest he took in affairs. He contributed poems to the daily press, called out by the Slavery question; he was, early in 1846, a correspondent of the London *Daily News*, and in the spring of 1848 he formed a connexion with the *National Anti-Slavery Standard* of New York, by which he agreed to furnish weekly either a poem or a prose article. The poems were most frequently works of art, occasionally they were tracts; but the prose was almost exclusively concerned with the public men and questions of the day, and forms a series of incisive, witty and sometimes prophetic diatribes. It was a period with him of great mental activity, and is represented by four of his books which stand as admirable witnesses to the Lowell of 1848, namely, the second series of *Poems*, containing among others "Columbus," "An Indian Summer Reverie," "To the Dandelion," "The Changeling"; *A Fable for Critics*, in which, after the manner of Leigh Hunt's *The Feast of the Poets*, he characterizes in witty verse and with good-natured satire American contemporary writers, and in which, the publication being anonymous, he included himself; *The Vision of Sir Launfal*, a romantic story suggested by the Arthurian legends—one of his most popular poems; and finally *The Biglow Papers*.

Lowell had acquired a reputation among men of letters and a cultivated class of readers, but this satire at once brought him a wider fame. The book was not premeditated; a single poem, called out by the recruiting for the abhorred Mexican war, couched in rustic phrase and sent to the *Boston Courier*, had the inspiriting dash and electrifying rat-tat-tat of this new recruiting sergeant in the little army of Anti-Slavery reformers. Lowell himself discovered what he had done at the same time that the public did, and he followed the poem with eight others either in the *Courier* or the *Anti-Slavery Standard*. He developed four well-defined characters in the process—a country farmer, Ezekiel Biglow, and his son Hosea; the Rev. Homer Wilbur, a shrewd old-fashioned country minister; and Birdofredum Sawin, a Northern renegade who enters the army, together with one or two subordinate characters; and his stinging satire and sly humour are so set forth in the vernacular of New England as to give at once a historic dignity to this form of speech. (Later he wrote an elaborate paper to show the survival in New England of the English of the early 17th century.) He embroidered his verse with an entertaining apparatus of notes and mock criticism. Even his index was spiced with wit. The book, a caustic arraignment of the course taken in connexion with the annexation of Texas and the war with Mexico, made a strong impression, and the political philosophy secreted in its lines became a part of household literature. It is curious to observe how repeatedly this arsenal was drawn upon in the discussions in America about the "Imperialistic" developments of 1900. The death of Lowell's mother, and the fragility of his wife's health, led Lowell, with his wife, their daughter Mabel and their infant son Walter, to go to Europe in 1851, and they went direct to Italy. The early months of their stay were saddened by the death of Walter in Rome, and by the news of the illness of Lowell's father, who had a slight shock of paralysis. They returned in November 1852, and Lowell published some recollections of his journey in the magazines, collecting the sketches later in a prose volume, *Fireside Travels*. He took some part also in the editing of an American edition of the *British Poets*, but the low state of his wife's health kept him in an uneasy condition, and when her death (27th October 1853) released him from the strain of anxiety, there came with the grief a readjustment of his nature and a new intellectual activity. At the invitation of his cousin, he delivered a course of lectures on English poets before the Lowell Institute in Boston in the winter of 1855. This first formal appearance as a critic and historian of literature at once gave him a new standing in the community, and was the occasion of his election to the Smith Professorship of Modern Languages in Harvard College, then vacant by the retirement of Longfellow. Lowell accepted the appointment, with the proviso that he should have a year of study abroad. He spent his time mainly in Germany, visiting Italy, and increasing his acquaintance with the French, German, Italian and Spanish tongues. He returned to America in the summer of 1856, and entered upon his college duties, retaining his position for twenty years. As a teacher he proved himself a quickener of thought amongst students, rather than a close and special instructor. His power lay in the interpretation of literature rather than in linguistic study, and his influence over his pupils was exercised by his own fireside as well as in the relation, always friendly and familiar, which he held to them in the classroom. In 1856 he married Miss Frances Dunlap, a lady who had since his wife's death had charge of his daughter Mabel.

In the autumn of 1857 *The Atlantic Monthly* was established, and Lowell was its first editor. He at once gave the magazine the stamp of high literature and of bold speech on public affairs. He held this position only till the spring of 1861, but he continued to make the magazine the vehicle of his poetry and of some prose for the rest of his life; his prose, however, was more abundantly presented in the pages of *The North American Review* during the years 1862-1872, when he was associated with Mr Charles Eliot Norton in its conduct. This magazine especially gave him the opportunity of expression of political views during the eventful years of the War of the Union. It was in *The Atlantic* during the same period that he published a second series of *The Biglow Papers*. Both his collegiate and editorial duties stimulated his critical powers, and the publication in the two magazines, followed by republication in book form, of a series of studies of great authors, gave him an important place as a critic. Shakespeare, Dryden, Lessing, Rousseau, Dante, Spenser, Wordsworth, Milton, Keats, Carlyle, Thoreau, Swinburne, Chaucer, Emerson, Pope, Gray—these are the principal subjects of his prose, and the range of topics indicates the catholicity of his taste. He wrote also a number of essays, such as "My Garden Acquaintance," "A Good Word for Winter," "On a Certain Condescension in Foreigners," which were incursions into the field of nature and society. Although the great bulk of his writing was now in prose, he made after this date some of his most notable ventures in poetry. In 1868 he issued the next collection in *Under the Willows and other Poems*, but in 1865 he had delivered his "Ode recited at the Harvard Commemoration," and the successive centennial historical anniversaries drew from him a series of stately odes.

In 1877 Lowell, who had mingled so little in party politics that the sole public office he had held was the nominal one of elector in the Presidential election of 1876, was appointed by President Hayes minister resident at the court of Spain. He had a good knowledge of Spanish language and literature, and his long-continued studies in history and his quick judgment enabled him speedily to adjust himself to these new relations. Some of his despatches to the home government were published in a posthumous volume—*Impressions of Spain*. In 1880 he was transferred to London as American minister, and remained there till the close of President Arthur's administration in the spring of 1885. As a man of letters he was already well known in England, and he was in much demand as an orator on public occasions, especially of a literary nature; but he also proved himself a sagacious publicist, and made himself a wise interpreter of each country to the other. Shortly after his retirement from public life he published *Democracy and other Addresses*, all of which had been delivered in England. The title address was an epigrammatic confession of political faith as hopeful as it was wise and keen. The close of his stay in England

was saddened by the death of his second wife in 1885. After his return to America he made several visits to England. His public life had made him more of a figure in the world; he was decorated with the highest honours Harvard could pay officially, and with degrees of Oxford, Cambridge, St Andrews, Edinburgh and Bologna. He issued another collection of his poems, *Heartsease and Rue*, in 1888, and occupied himself with revising and rearranging his works, which were published in ten volumes in 1890. The last months of his life were attended by illness, and he died at Elmwood on the 12th of August 1891. After his death his literary executor, Charles Eliot Norton, published a brief collection of his poems, and two volumes of added prose, besides editing his letters.

The spontaneity of Lowell's nature is delightfully disclosed in his personal letters. They are often brilliant, and sometimes very penetrating in their judgment of men and books; but the most constant element is a pervasive humour, and this humour, by turns playful and sentimental, is largely characteristic of his poetry, which sprang from a genial temper, quick in its sympathy with nature and humanity. The literary refinement which marks his essays in prose is not conspicuous in his verse, which is of a more simple character. There was an apparent conflict in him of the critic and the creator, but the conflict was superficial. The man behind both critical and creative work was so genuine, that through his writings and speech and action he impressed himself deeply upon his generation in America, especially upon the thoughtful and scholarly class who looked upon him as especially their representative. This is not to say that he was a man of narrow sympathies. On the contrary, he was democratic in his thought, and outspoken in his rebuke of whatever seemed to him antagonistic to the highest freedom. Thus, without taking a very active part in political life, he was recognized as one of the leaders of independent political thought. He found expression in so many ways, and was apparently so inexhaustible in his resources, that his very versatility and the ease with which he gave expression to his thought sometimes stood in the way of a recognition of his large, simple political ideality and the singleness of his moral sight.

WRITINGS.—The *Works of James Russell Lowell*, in ten volumes (Boston and New York, Houghton, Mifflin & Co., 1890); *édition de luxe*, 61 vols. (1904); *Latest Literary Essays and Addresses* (1891); *The Old English Dramatists* (1892); *Conversations on some of the Old Poets* (Philadelphia, David M'Kay; reprint of the volume published in 1843 and subsequently abandoned by its author, 1893); *The Power of Sound: a Rhymed Lecture* (New York, privately printed, 1896); *Lectures on English Poets* (Cleveland, The Rowfant Club, 1899).

MEMOIRS.—*Letters of James Russell Lowell*, edited by Charles Eliot Norton, in two volumes (New York, Harper & Brothers, 1899); *Life of James Russell Lowell* (2 vols.), by Horace E. Scudder (Houghton, Mifflin & Co., 1901); *James Russell Lowell and his Friends* (Boston, 1899), by Edward Everett Hale.

(H. E. S.*)

1 See under LOWELL, JOHN.

LOWELL, JOHN

(1743-1802), American jurist, was born in Newburyport, Massachusetts, on the 17th of June 1743, and was a son of the Reverend John Lowell, the first pastor of Newburyport, and a descendant of Perceval Lowle or Lowell (1571-1665), who emigrated from Somersetshire to Massachusetts Bay in 1639 and was the founder of the family in New England. John Lowell graduated at Harvard in 1760, was admitted to the bar in 1763, represented Newburyport (1776) and Boston (1778) in the Massachusetts Assembly, was a member of the Massachusetts Constitutional Convention of 1779-1780 and, as a member of the committee appointed to draft a constitution, secured the insertion of the clause, "all men are born free and equal," which was interpreted by the supreme court of the state in 1783 as abolishing slavery in the state. In 1781-1783 he was a member of the Continental Congress, which in 1782 made him a judge of the court of appeals for admiralty cases; in 1784 he was one of the commissioners from Massachusetts to settle the boundary line between Massachusetts and New York; in 1789-1801 he was a judge of the U.S. District Court of Massachusetts; and from 1801 until his death in Roxbury on the 6th of May 1802 he was a justice of the U.S. Circuit Court for the First Circuit (Maine, New Hampshire, Massachusetts and Rhode Island).

His son, JOHN LOWELL (1769-1840), graduated at Harvard in 1786, was admitted to the bar in 1789 (like his father, before he was twenty years old), and retired from active practice in 1803. He opposed French influence and the policies of the Democratic party, writing many spirited pamphlets (some signed "The Boston Rebel," some "The Roxbury Farmer"), including: *The Antigallican* (1797), *Remarks on the Hon. J. Q. Adams's Review of Mr Ames's Works* (1809), *New England Patriot, being a Candid Comparison of the Principles and Conduct of the Washington and Jefferson Administrations* (1810), *Appeals to the People on the Causes and Consequences of War with Great Britain* (1811) and *Mr Madison's War* (1812). These pamphlets contain an extreme statement of the anti-war party and defend impressment as a right of long standing. After the war Lowell abandoned politics, and won for himself the title of "the Columella of New England" by his interest in agriculture—he was for many years president of the Massachusetts Agricultural Society. He was a benefactor of the Boston Athenaeum and the Massachusetts General Hospital.

Another son of the first John Lowell, FRANCIS CABOT LOWELL (1775-1817), the founder in the United States of cotton manufacturing, was born in Newburyport on the 7th of April 1775, graduated at Harvard in 1793, became a merchant in Boston, and, during the war of 1812, with his cousin (who was also his brother-in-law), Patrick Tracy Jackson, made use of the knowledge of cotton-spinning gained by Lowell in England (whither he had gone for his health in 1810) and devised a power loom. Experiments were successfully carried on at Waltham in 1814. Lowell worked hard to secure a protective tariff on cotton goods. The city of Lowell, Massachusetts, was named in his honour. He died in Boston on the 10th of August 1817.

CHARLES LOWELL (1782-1861), brother of the last named, was born in Boston, graduated at Harvard in 1800, studied law and then theology, and after two years in Edinburgh and one year on the Continent was from 1806 until his death pastor of the West Congregational (Unitarian) Church of Boston, a charge in which Cyrus A. Bartol was associated with him after 1837. Charles Lowell had a rare sweetness and charm, which reappeared in his youngest son, James Russell Lowell (*q.v.*).

Francis Cabot Lowell's son, JOHN LOWELL (1799-1836), was born in Boston, travelled in India and the East Indies on business in 1816 and 1817, in 1832 set out on a trip around the world, and on the 4th of March 1836 died in Bombay. By a will made, said Edward Everett, "on the top of a palace of the Pharaohs," he left $237,000 to establish what is now known as the Lowell Institute (*q.v.*).

See the first lecture delivered before the Institute, Edward Everett's *A Memoir of Mr John Lowell, Jr.* (Boston, 1840).

A grandson of Francis Cabot Lowell, EDWARD JACKSON LOWELL (1845-1894), graduated at Harvard in 1867, was admitted to the Suffolk county (Mass.) bar in 1872, and practised law for a few years. He wrote *The Hessians and the Other German Auxiliaries of Great Britain in the Revolutionary War* (1884), *The Eve of the French Revolution* (1892) and the chapter, "The United States of America 1775-1782: their Political Relations with Europe," in vol. vii. (1888) of Winsor's *Narrative and Critical History of America*.

LOWELL, a city and one of the county-seats (Cambridge being the other) of Middlesex county, Massachusetts, U.S.A., situated in the N.E. part of the county at the confluence of the Concord and Merrimack rivers, about 25 m. N.W. of Boston. Pop. (1890) 77,696; (1900) 94,969, of whom 40,974 were foreign-born (14,674 being French Canadian, 12,147 Irish, 4485 English Canadian, 4446 English, 1203 Greek, 1099 Scotch); (1910 census), 106,294. Lowell is served by the Boston & Maine and the New York, New Haven & Hartford railways, and by inter-urban electric lines. The area of Lowell is 14.1 sq. m., much the larger part of which is S. of the Merrimack. The city is irregularly laid out. Its centre is Monument Square, in Merrimack Street, where are a granite monument to the first Northerners killed in the Civil War, Luther C. Ladd and A. O. Whitney (both of Lowell), whose regiment was mobbed in Baltimore on the 19th of April 1861 while marching to Washington; and a bronze figure of Victory (after one by Rauch in the Valhalla at Ratisbon), commemorating the Northern triumph in the Civil War. The Lowell textile school, opened in 1897, offers courses in cotton manufacturing, wool manufacturing, designing, chemistry and dyeing, and textile engineering; evening drawing schools and manual training in the public schools have contributed to the high degree of technical perfection in the factories. The power gained from the Pawtucket Falls in the Merrimack river has long been found insufficient for these. A network of canals supplies from 14,000 to 24,000 h.p.; and a small amount is also furnished by the Concord river, but about 26,000 h.p. is supplied by steam. In factory output ($46,879,212 in 1905; $41,202,984 in 1900) Lowell ranked fifth in value in 1905 and fourth in 1900 among the cities of Massachusetts; more than three-tenths of the total population are factory wage-earners, and nearly 19 % of the population are in the cotton mills. Formerly Lowell was called the “Spindle City” and the “Manchester of America,” but it was long ago surpassed in the manufacture of textiles by Fall River and New Bedford: in 1905 the value of the cotton product of Lowell, $19,340,925, was less than 60 % of the value of cotton goods made at Fall River. Woollen goods made in Lowell in 1905 were valued at $2,579,363; hosiery and knitted goods, at $3,816,964; worsted goods, at $1,978,552. Carpets and textile machinery are allied manufactures of importance. There are other factories for machinery, patent medicines, boots and shoes, perfumery and cosmetics, hosiery and rubber heels. Lowell was the home of the inventor of rubber heels, Humphrey O’Sullivan.

The founders of Lowell were Patrick Tracy Jackson (1780-1847), Nathan Appleton (1779-1861), Paul Moody (1779-1831) and the business manager chosen by them, Kirk Boott (1790-1837). The opportunity for developing water-power by the purchase of the canal around Pawtucket Falls (chartered for navigation in 1792) led them to choose the adjacent village of East Chelmsford as the site of their projected cotton mills; they bought the Pawtucket canal, and incorporated in 1822 the Merrimack Manufacturing Company; in 1823 the first cloth was actually made, and in 1826 a separate township was formed from part of Chelmsford and was named in honour of Francis Cabot Lowell, who with Jackson had improved Cartwright’s power loom, and had planned the mills at Waltham. In 1836 Lowell was chartered as a city. Lowell annexed parts of Tewksbury in 1834, 1874, 1888 and 1906, and parts of Dracut in 1851, 1874 and 1879. Up to 1840 the mill hands, with the exception of English dyers and calico printers, were New England girls. The “corporation,” as the employers were called, provided from the first for the welfare of their employees, and Lowell has always been notably free from labour disturbances.

The character of the early employees of the mills, later largely displaced by French Canadians and Irish, and by immigrants from various parts of Europe, is clearly seen in the periodical, *The Lowell Offering*, written and published by them in 1840-1845. This monthly magazine, organized by the Rev. Abel Charles Thomas (1807-1880), pastor of the First Universalist Church, was from October 1840 to March 1841 made up of articles prepared for some of the many improvement circles or literary societies; it then became broader in its scope, received more spontaneous contributions, and from October 1842 until December 1845 was edited by Harriot F. Curtis (1813-1889), known by her pen name, “Mina Myrtle,” and by Harriet Farley (1817-1907), who became manager and proprietor, and published selections from the *Offering* under the titles *Shells from the Strand of the Sea of Genius* (1847) and *Mind among the Spindles* (1849), with an introduction by Charles Knight. In 1854 she married John Intaglio Donlevy (d. 1872). Famous contributors to the *Offering* were Harriet Hanson (b. 1825) and Lucy Larcom (1824-1893). Harriet Hanson wrote *Early Factory Labor in New England* (1883) and *Loom and Spindle* (1898), an important contribution to the industrial and social history of Lowell. She was prominent in the anti-slavery and woman suffrage agitations in Massachusetts, and wrote *Massachusetts in the Woman Suffrage Movement* (1881). She married in 1848 William Stevens Robinson (1818-1876), who wrote in 1856-1876 the political essays signed “Warrington” for the *Springfield Republican*. Lucy Larcom,[1] born in Beverly, came to Lowell in 1835, where her widowed mother kept a “corporation” boarding-house, and where she became a “doffer,” changing bobbins in the mills. She wrote much, especially for the *Offering*; became an ardent abolitionist and (in 1843) the friend of Whittier; left Lowell in 1846, and taught for several years, first in Illinois, and then in Beverly and Norton, Massachusetts. *An Idyl of Work* (1875) describes the life of the mills and *A New England Girlhood* (1889) is autobiographical; she wrote many stories and poems, of which *Hannah Binding Shoes* is best known.

Benjamin F. Butler was from boyhood a resident of Lowell, where he began to practise law in 1841. James McNeill Whistler was born here in 1834, and in 1907 his birthplace in Worthen Street was purchased by the Art Association to be used as its headquarters and as an art museum and gallery; it was dedicated in 1908, and in the same year a replica of Rodin’s statue of Whistler was bought for the city.

See S. A. Drake, *History of Middlesex County*, 2, p. 53 et seq. (Boston, 1880); *Illustrated History of Lowell, Massachusetts* (Lowell, 1897); the books of Harriet H. Robinson and Lucy Larcom already named as bearing on the industrial conditions of the city between 1835 and 1850; and the famous description in the fourth chapter of Dickens’s *American Notes*.

1 See D. D. Addison, *Lucy Larcom; Life, Letters and Diary* (Boston, 1897).

LOWELL INSTITUTE, an educational foundation in Boston, Massachusetts, U.S.A., providing for free public lectures, and endowed by the bequest of $237,000 left by John Lowell, junior, who died in 1836. Under the terms of his will 10% of the net income was to be added to the principal, which in 1909 was over a million dollars. None of the fund was to be invested in a building for the lectures; the trustees of the Boston Athenaeum were made visitors of the fund; but the trustee of the fund is authorized to select his own successor, although in doing so he must “always choose in preference to all others some male descendant of my grandfather John Lowell, provided there is one who is competent to hold the office of trustee, and of the name of Lowell,” the sole trustee so appointed having the entire selection of the lecturers and the subjects of lectures. The first trustee was John Lowell junior’s cousin, John Amory Lowell, who administered the trust for more than forty years, and was succeeded in 1881 by his son, Augustus Lowell, who in turn was succeeded in 1900 by his son Abbott Lawrence Lowell, who in 1909 became president of Harvard University.

The founder provided for two kinds of lectures, one popular, “and the other more abstruse, erudite and particular.” The

popular lectures have taken the form of courses usually ranging from half a dozen to a dozen lectures, and covering almost every subject. The fees have always been large, and many of the most eminent men in America and Europe have lectured there. A large number of books have been published which consist of those lectures or have been based upon them. As to the advanced lectures, the founder seems to have had in view what is now called university extension, and in this he was far in advance of his time; but he did not realize that such work can only be done effectively in connexion with a great school. In pursuance of this provision public instruction of various kinds has been given from time to time by the Institute. The first freehand drawing in Boston was taught there, but was given up when the public schools undertook it. In the same way a school of practical design was carried on for many years, but finally, in 1903, was transferred to the Museum of Fine Arts. Instruction for working men was given at the Wells Memorial Institute until 1908, when the Franklin Foundation took up the work. A Teachers' School of Science is maintained in co-operation with the Natural History Society. For many years advanced courses of lectures were given by the professors of the Massachusetts Institute of Technology, but in 1904 they were superseded by an evening school for industrial foremen. In 1907, under the title of "Collegiate Courses," a number of the elementary courses in Harvard University were offered free to the public under the same conditions of study and examination as in the university.

For the earlier period, see Harriett Knight Smith, *History of the Lowell Institute* (Boston, 1898).

LÖWENBERG, a town of Germany, in the Prussian province of Silesia, on the Bober, 39 m. E. of Görlitz by rail. Pop. 5682. It is one of the oldest towns in Silesia; its town hall dates from the 16th century, and it has a Roman Catholic church built in the 13th century and restored in 1862. The town has sandstone and gypsum quarries, breweries and woollen mills, and cultivates fruit and vegetables. Löwenberg became a town in 1217 and has been the scene of much fighting, especially during the Napoleonic wars. Near the town is the village and estate of Hohlstein, the property of the Hohenzollern family.

LÖWENSTEIN, a town of Germany, in the kingdom of Württemberg, capital of the mediatized county of that name, situated under the north slope of the Löwenstein range, 6 m. from Heilbronn. Pop. 1527. It is dominated by the ruined castle of the counts of Löwenstein, and enclosed by medieval walls. The town contains many picturesque old houses. There is also a modern palace. The cultivation of vines is the chief industry, and there is a brine spring (Theusserbad).

Löwenstein was founded in 1123 by the counts of Calw, and belonged to the Habsburgs from 1281 to 1441. In 1634 the castle was destroyed by the imperialists. The county of Löwenstein belonged to a branch of the family of the counts of Calw before 1281, when it was purchased by the German king Rudolph I., who presented it to his natural son Albert. In 1441 Henry, one of Albert's descendants, sold it to the elector palatine of the Rhine, Frederick I., and later it served as a portion for Louis (d. 1524), a son of the elector by a morganatic marriage, who became a count of the Empire in 1494. Louis's grandson Louis II. (d. 1611) inherited the county of Wertheim and other lands by marriage and called himself count of Löwenstein-Wertheim; his two sons divided the family into two branches. The heads of the two branches, into which the older and Protestant line was afterwards divided, were made princes by the king of Bavaria in 1812 and by the king of Württemberg in 1813; the head of the younger, or Roman Catholic line, was made a prince of the Empire in 1711. Both lines are flourishing, their present representatives being Ernst (b. 1854) prince of Löwenstein-Wertheim-Freudenberg, and Aloyse (b. 1871) prince of Löwenstein-Wertheim-Rosenberg. The lands of the family were mediatized after the dissolution of the Empire in 1806. The area of the county of Löwenstein was about 53 sq. m.

See C. Rommel, *Grundzüge einer Chronik der Stadt Löwenstein* (Löwenstein, 1893).

LOWESTOFT, a municipal borough, seaport and watering-place in the Lowestoft parliamentary division of Suffolk, England, 117½ m. N.E. from London by the Great Eastern railway. Pop. (1901) 29,850. It lies on either side of the formerly natural, now artificial outlet of the river Waveney to the North Sea, while to the west the river forms Oulton Broad and Lothing Lake. The northern bank is the original site. South Lowestoft arose on the completion of harbour improvements, begun in 1844, when the outlet of the Waveney, reopened in 1827, was deepened. The old town is picturesquely situated on a lofty declivity, which includes the most easterly point of land in England. The church of St Margaret is Decorated and Perpendicular. South Lowestoft has a fine esplanade, a park (Bellevue) and other adjuncts of a watering-place. Bathing facilities are good. There are two piers enclosing a harbour with a total area of 48 acres, having a depth of about 16 ft. at high tide. The fisheries are important and some 600 smacks belong to the port. Industries include ship and boat building and fitting, and motor engineering. The town is governed by a mayor, 8 aldermen and 24 councillors. Area 2178 acres.

Lowestoft (Lothu Wistoft, Lowistoft, Loistoft) owes its origin to its fisheries. In 1086 it was a hamlet in the demesne of the royal manor of Lothingland. The men of Lowestoft as tenants on ancient demesne of the crown possessed many privileges, but had no definite burghal rights until 1885. For several centuries before 1740 the fisheries were the cause of constant dispute between Lowestoft and Yarmouth. During the last half of the 18th century the manufacture of china flourished in the town. A weekly market on Wednesdays was granted to John, earl of Richmond, in 1308 together with an eight days' fair beginning on the vigil of St Margaret's day, and in 1445 John de la Pole, earl of Suffolk, one of his successors as lord of the manor, received a further grant of the same market and also two yearly fairs, one on the feast of St Philip and St James and the other at Michaelmas. The market is still held on Wednesdays, and in 1792 the Michaelmas fair and another on May-day were in existence. Now two yearly fairs for small wares are held on the 13th of May and the 11th of October. In 1643 Cromwell performed one of his earlier exploits in taking Lowestoft, capturing large supplies and making prisoners of several influential royalists. In the war of 1665 the Dutch under Admiral Opdam were defeated off Lowestoft by the English fleet commanded by the duke of York.

See *Victoria County History, Suffolk*; E. Gillingwater, *An Historical Account of the Town of Lowestoft* (ed. 1790).

LOWIN, JOHN (1576-1659), English actor, was born in London, the son of a carpenter. His name frequently occurs in Henslowe's Diary in 1602, when he was playing at the Rose Theatre in the earl of Worcester's company, and he was at the Blackfriars in 1603, playing with Shakespeare, Burbage and the others, and owning—by 1608—a share and a half of the twenty shares in that theatre. About 1623 he was one of the managers. He lived in Southwark, and Edward Alleyn speaks of his dining with him in 1620. "Lowin in his latter days kept an inn (the Three Pigeons) at Brentford, where he deyed very old." Two of his favourite parts were Falstaff, and Melanteus in *The Maid's Tragedy*.

LOWLAND, in physical geography, any broad expanse of land with a general low level. The term is thus applied to the landward portion of the upward slope from oceanic depths to continental highlands, to a region of depression in the interior of a mountainous region, to a plain of denudation or to any region in contrast to a highland. The Lowlands and Highlands of Scotland are typical.

LOWNDES, THOMAS (1692-1748), founder of the Lowndean professorship of astronomy at Cambridge university, England, was born in 1692, both his father and mother being Cheshire landowners. In 1725 he was appointed provost marshal of South Carolina, a post he preferred to fill by deputy. In 1727 Lowndes claimed to have taken a prominent part in inducing the British government to purchase Carolina, but he surrendered his patent when the transfer of the colony to the crown was completed. His patent was renewed in 1730, but he resigned it in 1733. He then brought various impractical schemes before the government to check the illicit trade in wool between Ireland and France; to regulate the paper currency of New England; and to supply the navy with salt from brine, &c. He died on the 12th of May 1748. By his will he left his inherited Cheshire properties to the university of Cambridge for the foundation of a chair of astronomy and geometry.

LOWNDES, WILLIAM THOMAS (1798-1843), English bibliographer, was born about 1798, the son of a London bookseller. His principal work, *The Bibliographer's Manual of English Literature*—the first systematic work of the kind—was published in four volumes in 1834. It took Lowndes fourteen years to compile, but, despite its merits, brought him neither fame nor money. Lowndes, reduced to poverty, subsequently became cataloguer to Henry George Bohn, the bookseller and publisher. In 1839 he published the first parts of *The British Librarian*, designed to supplement his early manual, but owing to failing health did not complete the work. Lowndes died on the 31st of July 1843.

LOW SUNDAY, the first Sunday after Easter, so called because of its proximity to the "highest" of all feasts and Sundays, Easter. It was also known formerly as White Sunday, being still officially termed by the Roman Catholic Church *Dominica in albis*, "Sunday in white garments," in allusion to the white garments anciently worn on this day by those who had been baptized and received into the Church just before Easter. Alb Sunday, Quasimodo and, in the Greek Church, Antipascha, and ἡ δευτεροπρώτη Κυριακή (literally "second-first Sunday," *i.e.* the second Sunday after the first) were other names for the day.

LOWTH, ROBERT (1710-1787), English divine and Orientalist, was born at Winchester on the 27th of November 1710. He was the younger son of William Lowth (1661-1732), rector of Buriton, Hampshire, a theologian of considerable ability. Robert was educated on the foundation of Winchester College, and in 1729 was elected to a scholarship at New College, Oxford. He graduated M.A. in 1737, and in 1741 he was appointed professor of poetry at Oxford, in which capacity he delivered the *Praelectiones Academicae de Sacra Poesi Hebraeorum*. Bishop Hoadly appointed him in 1744 to the rectory of Ovington, Hampshire, and in 1750 to the archdeaconry of Winchester. In 1753 he was collated to the rectory of East Woodhay, Hampshire, and in the same year he published his lectures on Hebrew poetry. In 1754 he received the degree of doctor of divinity from his university, and in 1755 he went to Ireland for a short time as first chaplain to the lord-lieutenant, the 4th duke of Devonshire. He declined a presentation to the see of Limerick, but accepted a prebendal stall at Durham and the rectory of Sedgefield. In 1758 he published his *Life of William of Wykeham*; this was followed in 1762 by *A Short Introduction to English Grammar*. In 1765, the year of his election into the Royal Societies of London and Göttingen, he engaged in controversy with William Warburton on the book of Job, in which he was held by Gibbon to have had the

advantage. In June 1766 Lowth was consecrated bishop of St David's, and about four months afterwards he was translated to Oxford, where he remained till 1777, when he became bishop of London and dean of the Chapel Royal. In 1778 appeared his last work, *Isaiah, a new Translation, with a Preliminary Dissertation, and Notes, Critical, Philological, and Explanatory*. He declined the archbishopric of Canterbury in 1783, and died at Fulham on the 3rd of November 1787.

The *Praelectiones*, translated in 1787 by G. Gregory as *Lectures on the Sacred Poetry of the Hebrews*, exercised a great influence both in England and on the continent. Their chief importance lay in the idea of looking at the sacred poetry as poetry, and examining it by the ordinary standards of literary criticism. Lowth's aesthetic criticism was that of the age, and is now in great part obsolete, a more natural method having been soon after introduced by Herder. The principal point in which Lowth's influence has been lasting is his doctrine of poetic parallelism, and even here his somewhat mechanical classification of the forms of Hebrew sense-rhythm, as it should rather be called, is open to serious objections. Editions of the *Lectures* and of the *Isaiah* have been numerous, and both have been translated into German. A volume of *Sermons and other Remains*, with memoir by the topographer, Peter Hall (1802-1849), was published in 1834, and an edition of the *Popular Works* of Robert Lowth in 3 vols. appeared in 1843.

LOXODROME (from Gr. λοξός, oblique, and δρόμος, course), the line on the earth's surface making a constant angle with the meridian.

LOYALISTS or TORIES, in America, the name given to the colonists who were loyal to Great Britain during the War of Independence. In New England and the Middle Colonies loyalism had a religious as well as a political basis. It represented the Anglican as opposed to the Calvinistic influence. With scarcely an exception the Anglican ministers were ardent Loyalists, the writers and pamphleteers were the ministers and teachers of that faith, and virtually all the military or civil leaders were members of that church. The Loyalists north of Maryland represented the old Tory traditions. In the southern colonies, where Anglicanism predominated, the division did not follow religious lines so closely. In Virginia and South Carolina the Whig leaders were almost without exception members of the established church. Out of twenty Episcopal ministers in South Carolina only five were Loyalists. Although many of the wealthy Anglican planters of the tide-water section fought for the mother country, the Tories derived their chief support from the non-Anglican Germans and Scotch in the upper country. The natural leaders in these colonies were members of the same church as the governor and vied with him in their zeal for the support of that church. Since religion was not an issue, the disputes over questions purely political in character, such as taxation, distribution of land and appointment of officials, were all the more bitter. The settlers on the frontier were snubbed both socially and politically by the low-country aristocracy, and in North Carolina and South Carolina were denied courts of justice and any adequate representation in the colonial assembly. Naturally they refused to follow such leaders in a war in defence of principles in which they had no material interest. They did not drink tea and had little occasion for the use of stamps, since they were not engaged in commerce and had no courts in which to use legal documents. The failure of the British officers to realize that conditions in the south differed from those in the north, and the tendency on their part to treat all Dissenters as rebels, were partly responsible for the ultimate loss of their southern campaign. The Scotch-Irish in the south, influenced perhaps by memories of commercial and religious oppression in Ulster, were mostly in sympathy with the American cause.

Taking the Thirteen Colonies as a whole, loyalism drew its strength largely from the following classes: (1) the official class—men holding positions in the civil, military and naval services, and their immediate families and social connexions, as, for example, Lieutenant-Governor Bull in South Carolina, Governor Dunmore in Virginia and Governor Tryon in New York; (2) the professional classes—lawyers, physicians, teachers and ministers, such as Benjamin Kissam, Peter Van Schaack and Dr Azor Betts of New York and Dr Myles Cooper, president of King's College (now Columbia University); (3) large landed proprietors and their tenants, *e.g.* William Wragg in South Carolina and the De Lanceys, De Peysters and Van Cortlandts in New York; (4) the wealthy commercial classes in New York, Albany, Philadelphia, Baltimore and Charleston, whose business interests would be affected by war; (5) natural conservatives of the type of Joseph Galloway of Pennsylvania, and numerous political trimmers and opportunists. Before 1776 the Loyalists may be divided into two groups. There was a minority of extremists led by the Anglican ministers and teachers, who favoured an unquestioning obedience to all British legislation. The moderate majority disapproved of the mother country's unwise colonial policy and advocated opposition to it through legally organized bodies. Many even sanctioned non-importation and non-exportation agreements, and took part in the election of delegates to the First Continental Congress. The aggressive attitude of Congress, the subsequent adoption of the Declaration of Independence, and the refusal to consider Lord Howe's conciliatory propositions finally forced them into armed opposition. Very few really sanctioned the British policy as a whole, but all felt that it was their first duty to fight for the preservation of the empire and to leave constitutional questions for a later settlement. John Adams's estimate that one-third of all the people in the thirteen states in 1776 were Loyalists was perhaps approximately correct. In New England the number was small, perhaps largest in Connecticut and in the district which afterwards became the state of Vermont. New York was the chief stronghold. The "De Lancey party" or the "Episcopalian party" included the majority of the wealthy farmers, merchants and bankers, and practically all communicants of the Anglican church. New Jersey, Pennsylvania, Delaware, Maryland and Virginia contained large and influential Loyalist minorities; North Carolina was about equally divided; South Carolina probably, and Georgia certainly, had Loyalist majorities. Some of the Loyalists joined the regular British army, others organized guerilla bands and with their Indian allies inaugurated a reign of terror on the frontier from New York to Georgia. New York alone furnished about 15,000 Loyalists to the British army and navy, and about 8500 militia, making in all 23,500 Loyalist troops. This was more than any other colony supplied, perhaps more than all the others combined. Johnson's "Loyal Greens" and Butler's "Tory Rangers" served under General St Leger in the Burgoyne campaign of 1777, and the latter took part in the Wyoming and Cherry Valley massacres of 1778. The strength of these Loyalists in arms was weakened in New York by General Sullivan's success at Newtown (now Elmira) on the 29th of August 1779, and broken in the north-west by George Rogers Clark's victories at Kaskaskia and Vincennes in 1778 and 1779, and in the south by the battles of King's Mountain and Cowpens in 1780. Severe laws were passed against the Loyalists in all the states. They were in general disfranchised and forbidden to hold office or to practise law. Eight of the states formally banished certain prominent Tories either conditionally or unconditionally, and the remaining five, Connecticut, New Jersey, Delaware, Maryland and Virginia, did practically the same indirectly. Social and commercial ostracism forced many others to flee. Their property was usually confiscated for the support of the American cause. They went to England, to the West Indies, to the Bahamas, to Canada and to New York, Newport, Charleston and other cities under British control. According to a trustworthy estimate 60,000 persons went into exile during the years from 1775 to 1787. The great majority settled in Nova Scotia and in Upper and Lower Canada, where

they and their descendants became known as “United Empire Loyalists.” Those who remained in the United States suffered for many years, and all the laws against them were not finally repealed until after the War of 1812. The British government, however, endeavoured to look after the interests of its loyal colonists. During the war a number of the prominent Loyalists (*e.g.* Joseph Galloway) were appointed to lucrative positions, and rations were issued to many Loyalists in the cities, such as New York, which were held by the British. During the peace negotiations at Paris the treatment of the Loyalists presented a difficult problem, Great Britain at first insisting that the United States should agree to remove their disabilities and to act toward them in a spirit of conciliation. The American commissioners, knowing that a treaty with such provisions would not be accepted at home, and that the general government had, moreover, no power to bind the various states in such a matter, refused to accede; but in the treaty, as finally ratified, the United States agreed (by Article V.) to recommend to the legislatures of the various states that Loyalists should “have free liberty to go to any part or parts of any of the thirteen United States, and therein to remain twelve months, unmolested in their endeavours to obtain the restitution of such of their estates, rights and properties as may have been confiscated,” that acts and laws in the premises be reconsidered and revised, and that restitution of estates, &c., should be made. The sixth article provided “that there shall be no future confiscations made, nor any prosecutions commenced against any person” for having taken part in the war; and that those in confinement on such charges should be liberated. In Great Britain opponents of the government asserted that the Loyalists had virtually been betrayed; in America the treaty aroused opposition as making too great concessions to them. Congress made the promised recommendations, but they were unheeded by the various states, in spite of the advocacy by Alexander Hamilton and others of a conciliatory treatment of the Loyalists; and Great Britain, in retaliation, refused until 1796 to evacuate the western posts as the treaty prescribed. Immediately after the war parliament appointed a commission of five to examine the claims of the Loyalists for compensation for services and losses; and to satisfy these claims and to establish Loyalists in Nova Scotia and Canada the British government expended fully £6,000,000.

See C. H. van Tyne, *The Loyalists in the American Revolution* (New York, 1902), which contains much valuable information but does not explain adequately the causes of loyalism. More useful in this respect is the monograph by A. C. Flick, *Loyalism in New York daring the American Revolution* (New York, 1901). On the biographical side see Lorenzo Sabine, *Biographical Sketches of Loyalists of the American Revolution* (2 vols., Boston, 1864); on the literary side, M. C. Tyler, *Literary History of the American Revolution*, 1763-1783 (2 vols., New York, 1897).

LOYALTY, allegiance to the sovereign or established government of one’s country, also personal devotion and reverence to the sovereign and royal family. The English word came into use in the early part of the 15th century in the sense of fidelity to one’s oath, or in service, love, &c.; the later and now the ordinary sense appears in the 16th century. The O. Fr. *loialtê*, mod. *loyauté*, is formed from *loial*, loyal, Scots *leal*, Lat. *legalis*, legal, from *lex*, law. This was used in the special feudal sense of one who has full legal rights, a *legalis homo* being opposed to the *exlex*, *utlegatus*, or outlaw. Thence in the sense of faithful, it meant one who kept faithful allegiance to his feudal lord, and so loyal in the accepted use of the word.

LOYALTY ISLANDS (Fr. *Iles Loyalty* or *Loyauté*), a group in the South Pacific Ocean belonging to France, about 100 m. E. of New Caledonia, with a total land area of about 1050 sq. m. and 20,000 inhabitants. It consists of Uea or Uvea (the northernmost), Lifu (the largest island, with an area of 650 sq. m.), Tiga and several small islands and Maré or Nengone. They are coral islands of comparatively recent elevation, and in no place rise more than 250 ft. above the level of the sea. Enough of the rocky surface is covered with a thin coating of soil to enable the natives to grow yams, taro, bananas, &c., for their support; cotton thrives well, and has even been exported in small quantities, but there is no space available for its cultivation on any considerable scale. Fresh water, rising and falling with the tide, is found in certain large caverns in Lifu, and by sinking to the sea-level a supply may be obtained in any part of the island. The chief product of the islands are bananas; the chief export sandal-wood.

The Loyalty islanders are Melanesians; the several islands have each its separate language, and in Uea one tribe uses a Samoan and another a New Hebridean form of speech. The Loyalty group was discovered at the beginning of the 19th century, and Dumont d’Urville laid down the several islands in his chart. For many years the natives had a reputation as dangerous cannibals, but they are now among the most civilized Melanesians. Christianity was introduced into Maré by native teachers from Rarotonga and Samoa; missionaries were settled by the London Missionary Society at Maré in 1854, at Lifu in 1859 and at Uea in 1865: Roman Catholic missionaries also arrived from New Caledonia; and in 1864 the French, considering the islands a dependency of that colony, formally instituted a commandant. An attempt was made by this official to put a stop to the English missions by violence; but the report of his conduct led to so much indignation in Australia and in England that the emperor Napoleon, on receipt of a protest from Lord Shaftesbury and others, caused a commission of inquiry to be appointed and free liberty of worship to be secured to the Protestant missions. A further persecution of Christians in Uea, during 1875, called forth a protest from the British government.

LOYOLA, ST IGNATIUS OF (1491-1556), founder of the Society of Jesus. Inigo Lopez de Recalde, son of Beltran, lord of the noble houses of Loyola and Oñaz, was born, according to the generally accepted opinion, on the 24th of December 1491 at the castle of Loyola, which is situated on the river Urola, about 1 m. from the town of Azpeitia, in the province of Guipuzcoa. He was the youngest of a family of thirteen. As soon as he had learnt the elements of reading and writing, he was sent as a page to the court of Ferdinand and Isabella; afterwards, until his twenty-sixth year, he took service with Antonio Maurique, duke of Nagera, and followed the career of arms. He was free in his relations with women, gambled and fought; but he also gave indications of that courage, constancy and prudence which marked his after life. In a political mission to settle certain disputes in the province he showed his dexterity in managing men.

Despite the treaty of Noyon (1516), Charles V. kept Pampeluna, the capital of Navarre. André de Foix, at the head of the French troops, laid siege to the town in 1521 and Ignatius was one of the defending garrison. In the hour of danger, the claims of religion reasserted themselves on the young soldier, and, following a custom when no priest was at hand, he made

his confession to a brother officer, who in turn also confessed to him. During the final assault on the 19th of May 1521 a cannon ball struck him, shattering one of his legs and badly wounding the other. The victorious French treated him kindly for nearly two weeks, and then sent him in a litter to Loyola. The doctors declared that the leg needed to be broken and set again; and the operation was borne without a sign of pain beyond a clenching of his fist. His vanity made him order the surgeons to cut out a bone which protruded below the knee and spoilt the symmetry of his leg. He was lame for the rest of his days. Serious illness followed the operations, and, his life being despaired of, he received the last sacraments on the 28th of June. That night, however, he began to mend, and in a few days he was out of danger. During convalescence two books that were to influence his life were brought to him. These were a Castilian translation of *The Life of Christ* by Ludolphus of Saxony, and the popular *Flowers of the Saints*, a series of pious biographies. He gradually became interested in these books, and a mental struggle began. Sometimes he would pass hours thinking of a certain illustrious lady, devising means of seeing her and of doing deeds that would win her favour; at other times the thoughts suggested by the books got the upper hand. He began to recognize that his career of arms was over: so he would become the knight of Christ. He determined to make the pilgrimage to Jerusalem and to practise all the austerities that he read of in *The Flowers of the Saints*. Expiating his sins was not so much his aim as to accomplish great deeds for God. During the struggle that went on in his soul, he began to take note of his psychological state; and this was the first time that he exercised his reason on spiritual things; the experience thus painfully gained he found of great use afterwards in directing others. One night while he lay awake, he tells us, he saw the likeness of the Blessed Virgin with her divine Son; and immediately a loathing seized him for the former deeds of his life, especially for those relating to carnal desires; and he asserts that for the future he never yielded to any such desires. This was the first of many visions. Ignatius proposed after returning from Jerusalem to join the Carthusian order at Seville as a lay brother. About the same time Martin Luther was in the full course of his protest against the papal supremacy and had already burnt the pope's bull at Worms. The two opponents were girding themselves for the struggle; and what the Church of Rome was losing by the defection of the Augustinian was being counterbalanced by the conversion of the founder of the Society of Jesus.

As soon as Ignatius had regained strength, he started ostensibly to rejoin the duke of Nagera, but in reality to visit the great Benedictine abbey of Montserrato, a famous place of pilgrimage. On the way, he was joined by a Moor, who began to jest at some of the Christian doctrines, especially at the perpetual virginity of the Blessed Virgin. Ignatius was no controversialist; and the Moor rode off victorious. The chivalrous nature of Ignatius was aroused. Seized with a longing to pursue and kill the Moor on account of his insulting language, Ignatius, still doubting as to his best course, left the matter to his mule, which at the dividing of the ways took the path to the abbey, leaving the open road which the Moor had taken. Before reaching Montserrato, Ignatius purchased some sackcloth for a garment and hempen shoes, which, with a staff and gourd, formed the usual pilgrim's dress. Approaching the abbey he resolved to do as his favourite hero Amadis de Gaul did—keep a vigil all night before the Lady altar and then lay aside his worldly armour to put on that of Christ. He arrived at the abbey just about the feast of St Benedict (the 21st of March 1522), and there made a confession of his life to a priest belonging to the monastery. He found in use for the pilgrims a translation of the *Spiritual Exercises* of the former abbot, Garcia di Cisneros (d. 1510); and this book evidently gave Ignatius the first idea of his more famous work under the same title. Leaving his mule to the abbey, and giving away his worldly clothes to a beggar, he kept his watch in the church during the night of the 24th-25th of March, and placed on the Lady altar his sword and dagger. Early the next morning he received the Holy Eucharist and left before any one could recognize him, going to the neighbouring town of Manresa, where he first lived in the hospice. Here began a series of heavy spiritual trials which assailed him for many months. Seven hours a day he spent on his knees in prayer and three times a day he scourged his emaciated body. One day, almost overcome with scruples, he was tempted to end his miseries by suicide. At another time, for the same reason, he kept an absolute fast for a week. He tells us that, at this time, God wrought with him as a master with a schoolboy whom he teaches. But his energies were not confined to himself. He assisted others who came to him for spiritual advice; and seeing the fruit reaped from helping his neighbour, he gave up the extreme severities in which he had delighted and began to take more care of his person, so as not needlessly to offend those whom he might influence for good.

During his stay at Manresa, he lived for the most part in a cell at the Dominican convent; and here, evidently, he had severe illnesses. He recounts the details of at least two of these attacks, but says nothing about the much-quoted swoon of eight days, during which he is supposed to have seen in vision the scheme of the future Society. Neither does he refer in any way to the famous cave in which, according to the Ignatian myth, the *Spiritual Exercises* were written. Fortunately we have the first-hand evidence of his autobiography, which is a surer guide than the lines written by untrustworthy disciples. Ignatius remained at Manresa for about a year, and in the spring of 1523 set out for Barcelona on his way to Rome, where he arrived on Palm Sunday. After two weeks he left, having received the blessing of Pope Adrian VI., and proceeded by Padua to Venice, where he begged his bread and slept in the Piazza di San Marco until a rich Spaniard gave him shelter and obtained an order from the doge for a passage in a pilgrim ship bound for Cyprus, whence he could get to Jaffa. In due course Ignatius arrived at Jerusalem, where he intended to remain, in order continuously to visit the holy places and help souls. For this end he had obtained letters of recommendation to the guardian, to whom, however, he only spoke of his desire of satisfying his devotion, not hinting his other motive. The Franciscans gave him no encouragement to remain; and the provincial threatened him with excommunication if he persisted. Not only had the friars great difficulty in supporting themselves, but they dreaded an outbreak from the fanatical Turks who resented some imprudent manifestations of Loyola's zeal. Ignatius returned to Venice in the middle of January 1524; and, determining to devote himself for a while to study, he set out for Barcelona, where he arrived in Lent. Here he consulted Isabella Roser, a lady of high rank and piety, and also the master of a grammar school. These both approved his plan; the one promised to teach him without payment and the other to provide him with the necessaries of life. Here, in his thirty-third year, he began to learn Latin, and after two years his master urged him to go to Alcalá to begin philosophy. During his stay of a year and a half in this university, besides his classes, he found occasion to give to some companions his *Spiritual Exercises* in the form they had then taken and certain instructions in Christian doctrine. On account of these discourses Ignatius came into conflict with the Inquisition. He and his companions were denounced as belonging to the sects of *Sagati* and *Illuminati*. Their mode of life and dress was peculiar and hinted at innovation. But, always ready to obey authority, Ignatius was able to disarm any charges that, now and at other times, were brought against him. The Inquisition merely advised him and his companions to dress in a less extraordinary manner and to go shod. Four months later he was suddenly cast into prison; and, after seventeen days, he learnt that he was falsely accused of sending two noble ladies on a pilgrimage to Jaen. During their absence, from the 21st of April 1527 to the 1st of June, he remained in prison, and was then set free with a prohibition against instructing others until he had spent four years in study.

Seeing his way thus barred at Alcalá, he went with his companions to Salamanca. Here the Dominicans, doubting the orthodoxy of the new-comers, had them put into prison, where they were chained foot to foot and fastened to a stake set up in the middle of the cell. Some days afterwards Ignatius was examined and found without fault. His patience won him many friends; and when he and his companions remained in prison while the other prisoners managed to escape, their conduct excited much admiration. After twenty-two days they were called up to receive sentence. No fault was found in their life and teaching; but they were forbidden to define any sins as being mortal or venial until they had studied for four years. Hampered again by such an order, Ignatius determined to go to Paris to continue his studies. Up to the present he was far from having any idea of founding a society. The only question before him now was whether he should join an order, or continue his wandering existence. He decided upon Paris for the present, and before leaving Salamanca he agreed with his companions that they should wait where they were until he returned; for he only meant to see whether he could find any means by which they all might give themselves to study. He left Barcelona and, travelling on foot to Paris, he arrived there in February 1528. The university of Paris had reached its zenith at the time of the council of Constance (1418), and was now losing its intellectual leadership under the attacks of the Renaissance and the Reformation. In 1521 the university had condemned Luther's *Babylonish Captivity*, and in 1527 Erasmus's *Colloquies* met with the same fate. Soon after his arrival, Ignatius may

have seen in the Place de Grève the burning of Louis de Berquin for heresy.[1] At this period there were between twelve and fifteen thousand students attending the university, and the life was an extraordinary mixture of licentiousness and devout zeal. When Ignatius arrived in Paris, he lodged at first with some fellow-countrymen; and for two years attended the lectures on humanities at the collège de Montaigu, supporting himself at first by the charity of Isabella Roser; but, a fellow-lodger defrauding him of his stock, he found himself destitute and compelled to beg his bread. He retired to the hospice of St 82
Jacques; and, following the advice of a Spanish monk, spent his vacations in Flanders, where he was helped by the rich Spanish merchants. At Bruges he became acquainted with the famous Spanish scholar, Juan Luis Vives, with whom he lodged. In the summer of 1530 he went to London, where he received alms more abundantly than elsewhere. As he could only support himself at Paris with difficulty, it was impossible to send for his companions in Salamanca. Others, however, joined him in Paris, and to some of them he gave the *Spiritual Exercises*, with the result that the Inquisition made him give up speaking on religious subjects during the time he was a student. At the end of 1529 he came into contact with the men who were eventually to become the first fathers of the Society of Jesus. He won over the Savoyard Pierre Lefèvre (Faber), whose room he shared, and the Navarrese Francis Xavier, who taught philosophy in the college of St Barbara. Afterwards he became acquainted with the young Castilian, Diego Laynez, who had heard of him at Acalá and found him out in Paris. With Laynez came two other young men, the Toledan Alfonso Salmeron and the Portuguese Simon Rodriguez. Nicholas Bobadilla, a poor Spaniard who had finished his studies, was the next to join him. The little company of seven determined to consecrate their union by vows. On the 15th of August 1534, the Feast of the Assumption, they assembled in the crypt of the church of St Mary on Montmartre, and Faber, the only one who was a priest, said Mass. They then took the vows of poverty and chastity, and pledged themselves to go to the Holy Land as missionaries or for the purpose of tending the sick; or if this design should prove impracticable, to go to Rome and place themselves at the disposal of the pope for any purpose. But, whatever may have been the private opinion of Ignatius, there was on this occasion no foundation of any society. The vows were individual obligations which could be kept quite apart from membership in a society. A provision was made that if, after waiting a year at Venice, they were unable to go to Jerusalem, this part of the vow should be cancelled and they should at once betake themselves to Rome.

At this time Ignatius was again suffering from his former imprudent austerities; and he was urged to return for a while to his native air. He left Paris for Spain in the autumn of 1535, leaving Faber in charge of his companions to finish their studies. During the absence of Ignatius, Faber gained three more adherents. But before leaving Paris Ignatius heard once more that complaints had been lodged against him at the Inquisition; but these like the others were found to be without any foundation. When he arrived near Loyola he would not go to the castle, but lived at the public hospice at Azpeitia, and began his usual life of teaching Christian doctrine and reforming morals. Falling ill again he went to other parts of Spain to transact business for his companions. Then, sailing from Valencia to Genoa, he made his way to Venice, where he arrived during the last days of 1535. Here he waited for a year until his companions could join him, and meanwhile he occupied himself in his usual good works, gaining several more companions and meeting Giovanni Piero Caraffa, afterwards Paul IV., who had lately founded the Theatines. What happened between the two does not appear; but henceforth Caraffa seems to have borne ill will towards Ignatius and his companions. At Venice Ignatius was again accused of heresy, and it was said that he had escaped from the Inquisition in Spain and had been burnt in effigy at Paris. These charges he met successfully by insisting that the nuncio should thoroughly inquire into the matter.

After a journey of fifty-four days his companions arrived at Venice in January 1537; and here they remained until the beginning of Lent, when Ignatius sent them to Rome to get money for the proposed voyage to Palestine. He himself stayed behind, as he feared that, if he went with them, Caraffa at Rome, together with Dr Ortiz, a German opponent in Paris and now Charles V.'s ambassador at the Vatican, would prejudice the pope against them. But Ortiz proved a friend and presented them to Paul III., who gave them leave to go to Palestine to preach the Gospel, bestowing upon them abundant alms. He likewise gave licence for those not yet priests to be ordained by any catholic bishop on the title of poverty. They had returned to Venice where Ignatius and the others were ordained priests on the 24th of June 1537, after having renewed their vows of poverty and chastity to the legate Verallo. Ignatius, now a priest, waited for eighteen months before saying Mass, which he did for the first time on the 25th of December 1538 in the church of Santa Maria Maggiore in Rome.

The year of waiting passed away without any chance of going to the Holy Land. Finding it impossible to keep this part of their vow, the fathers met at Vicenza, where Ignatius was staying in a ruined monastery; and here after deliberation it was determined that he, Laynez and Faber should go to Rome to place the little band at the disposal of the pope. It was now that the Society began to take some visible form. A common rule was devised and a name adopted. Ignatius declared that having assembled in the name of Jesus, the association should henceforth bear the name of the "Company of Jesus." The word used shows Loyola's military ideal of the duties and methods of the nascent society.

On the road to Rome a famous vision took place, as to which we have the evidence of Ignatius himself. In a certain church, a few miles before Rome, whilst in prayer he was aware of a stirring and a change in his soul; and so openly did he see God the Father placing him with Christ, that he could not dare to doubt that God the Father had so placed him. Subsequent writers add that Christ, looking at him with a benign countenance, said: "I shall be propitious to you"; while others add the significant words, "at Rome." Ignatius, however, says nothing about so important a matter; indeed he understood the vision to mean that many things would be adverse to them, and told his companions when they reached the city that he saw the windows there closed against him. He also said: "We must of necessity proceed with caution; and we must not make the acquaintance of women unless they be of very high rank." They arrived in Rome in October 1537; and lived at first in a little cottage in a vineyard and near the Trinità dei Monti. The pope appointed Faber to teach Holy Scripture, and Laynez scholastic theology, in the university of the Sapienza. Ignatius was left free to carry on his spiritual work, which became so large that he was obliged to call his other companions to Rome. During the absence of the pope, a certain hermit began to spread heresy and was opposed by Ignatius and his companions. In revenge the hermit brought up the former accusations concerning the relations to the Inquisition, and proclaimed Ignatius and his friends to be false, designing men and no better than concealed heretics. The matter was examined and the legate ordered the suit to be quashed. But this did not suit Ignatius. It was necessary for his own good repute and the future of his work that a definitive sentence should be pronounced and his name cleared once and for all. The legate demurred; but on the pope's return sentence was formally given in his favour.

The life of Ignatius is now mainly identified with the formation and growth of his Society (see Jesuits), but his zeal found other outlets in Rome. He founded institutions for rescuing fallen women, started orphanages and organized catechetical instructions. He obtained, after difficulty, the official recognition of his Society from Paul III. on the 27th of September 1540, and successfully steered it through many perils that beset it in its early days. He was unanimously elected the first general in April 1541; and on the 22nd of that month received the first vows of the Society in the church of San Paolo *fuori la mura*. Two works now chiefly occupied the remainder of his life: the final completion of the *Spiritual Exercises* and the drawing up of the *Constitutions*, which received their final form after his death. These two are so constantly connected that the one cannot be understood without the other. The *Constitutions* are discussed in the article on the Jesuits. In these he taught his followers to respond to the call; by the *Spiritual Exercises* he moulded their character.

> The *Book of the Spiritual Exercises* has been one of the world-moving books. In its strict conception it is only an application of the Gospel precepts to the individual soul. Its object is to convince a man of sin, of justice and of judgment. The idea of the 83
> book is not original to Ignatius At Montserrato he had found in use a popular translation of the *Exercitatorio de la vida spiritual* (1500), written in Latin by Abbot Garcias de Cisneros (d. 1510), and divided into three ways or periods during which purity of soul, enlightenment and union are to be worked for; a fourth part is added on contemplation. This book evidently afforded the root idea of the Ignatian and more famous book. But the differences are great. While taking the title, the idea of division by periods and the subjects of most of the meditations from the older work, Ignatius skilfully adapted it to his own requirements. Above all the methods of the two are essentially different. The Benedictine work follows the old monastic

tradition of the direct intercourse of the soul with God. Ignatius, with his military instinct and views of obedience, intervenes with a director who gives the exercises to the person who in turn receives them. If this introduction of the director is essential to the end for which Ignatius framed his *Exercises*, in it we also find dangers. A director, whose aim is only the personal advantage of the one who is receiving the exercises, will be the faithful interpreter of his founder's intentions: but in the case of one whose *esprit de corps* is unbalanced, the temporary and pecuniary advantage of the Society may be made of more importance than that of the exercitant. Another danger may come when minuteness of direction takes away the wholesome sense of responsibility. Apart from these abuses the *Spiritual Exercises* have proved their value over and over again, and have received the sincerest form of flattery in countless imitations. The original parts of the book are principally to be found in the meditations, which are clearly Ignatian in conception as well as method. These are *The Reign of Christ*, wherein Christ as an earthly king calls his subjects to war: and *Two Standards*, one of Jesus Christ and the other of Lucifer. Besides these there are various additions to the series of meditations, which are mostly the practical results of the experiences which Ignatius went through in the early stages of his conversion. He gives various methods of prayer; methods of making an election; his series of rules for the discernment of spirits; rules for the distribution of alms and the treatment of scruples; tests of orthodoxy. These additions are skilfully worked into the series of meditations; so that when the exercitant by meditation has moved his soul to act, here are practical directions at hand.

The exercises are divided into four series of meditations technically called "weeks," each of which may last as long as the director considers necessary to achieve the end for which each week is destined. But the whole period is generally concluded in the space of a month. The first week is the foundation, and has to do with the consideration of the end of man, sin, death, judgment and hell. Having purified the soul from sin and obtained a detestation thereof, the second week treats of the kingdom of Christ, and is meant to lead the soul to make an election of the service of God. The third and fourth weeks are intended to confirm the soul in the new way chosen, to teach how difficulties can be overcome, to inflame it with the love of God and to help it to persevere.

The Book of the Spiritual Exercises was not written at Manresa, although there is in that place an inscription testifying to the supposed fact. Ignatius was constantly adding to his work as his own personal experience increased, and as he watched the effects of his method on the souls of those to whom he gave the exercises. The latest critics, even those of the Society itself, give 1548 as the date when the book received its final touches; though Father Roothaan gives Rome, the 9th of July 1541, as the date at the end of the ancient MS. version. Ignatius wrote originally in Spanish, but the book was twice translated into Latin during his lifetime. The more elegant version (known as the common edition) differs but slightly from the Spanish. Francisco Borgia, while duke of Gandia, petitioned Paul III. to have the book examined and approved. The pope appointed censors for both translations, who found the work to be replete with piety and holiness, highly useful and wholesome. Paul III. on receiving this report confirmed it on the 31st of July 1548 by the breve *Pastoralis officii cura*. This book, which is rightly called the spiritual arm of the Society, was the first book published by the Jesuits.

The progress of the Society of Jesus in Loyola's lifetime was rapid (see Jesuits). Having always had an attraction for a life of prayer and retirement, in 1547 he tried to resign the generalship, and again in 1550, but the fathers unanimously opposed the project. One of his last trials was to see in 1556 the election as pope of his old opponent Caraffa, who soon showed his intention of reforming certain points in the Society that Ignatius considered vital. But at this difficult crisis he never lost his peace of mind. He said: "If this misfortune were to fall upon me, provided it happened without any fault of mine, even if the Society were to melt away like salt in water, I believe that a quarter of an hour's recollection in God would be sufficient to console me and to re-establish peace within me." It is clear that Ignatius never dreamed of putting his Society before the church nor of identifying the two institutions.

In the beginning of 1556 Ignatius grew very weak and resigned the active government to three fathers, Polanco, Madrid and Natal. Fever laid hold of him, and he died somewhat suddenly on the 31st of July 1556, without receiving or asking for the last sacraments. He was beatified in 1609 by Paul V. and canonized in 1628 by Gregory XV. His body lies under the altar in the north transept of the Gesù in Rome.

His portrait is well known. The olive complexion, a face emaciated by austerities, the large forehead, the brilliant and small eyes, the high bald head tell their own tale. He was of medium height and carried himself so well that his lameness was hardly noticeable. His character was naturally impetuous and enthusiastic, but became marked with great self-control as he gradually brought his will under his reason. There was always that love of overcoming difficulty inherent in a chivalrous nature; and this also accounts for that desire of surpassing every one else that marked his early days. Whilst other Christians, following St Paul, were content to do all things for the glory of God, Ignatius set himself and his followers to strive after the greater glory. Learning by his own experience and errors, he wisely developed a sovereign prudence which nicely adjusted means to the end in view. He impressed on his followers the doctrine that in all things the end was to be considered. Never would Ignatius have countenanced so perverted an idea as that the end justified the means, for with his spiritual light and zeal for God's glory he saw clearly that means in themselves unjust were opposed to the very end he held in view. As a ruler he displayed the same common sense. Obedience he made one of his great instruments, yet he never intended it to be a galling yoke. His doctrine on the subject is found in the well-known letter to the Portuguese Jesuits in 1553, and if this be read carefully together with the *Constitutions* his meaning is clear. If he says that a subject is to allow himself to be moved and directed, under God, by a superior just as though he were a corpse or as a staff in the hands of an old man, he is also careful to say that the obedience is only due in all things "wherein it cannot be defined (as it is said) that any kind of sin appears." The way in which his teaching on obedience is practically carried out is the best corrective of the false ideas that have arisen from misconceptions of its nature. His high ideas on the subject made him a stern ruler. There are certain instances in his life which, taken by themselves, show a hardness in treating individuals who would not obey; but as a rule, he tempered his authority to the capacity of those with whom he had to deal. When he had to choose between the welfare of the Society and the feelings of an individual it was clear to which side the balance would fall.

There was in his character a peculiar mixture of conservatism and a keen sense of the requirements of the day. In intellectual matters he was not in advance of his day. The Jesuit system of education, set forth in the *Ratio studiorum*, owes nothing to him. While he did not reject any approved learning, he abhorred any intellectual culture that destroyed or lessened piety. He wished to secure uniformity in the judgment of the Society even in points left open and free by the church: "Let us all think in the same way, let us all speak in the same manner if possible." Bartole, the official biographer of Ignatius, says that he would not permit any innovation in the studies; and that, were he to live five hundred years, he would always repeat "no novelties" in theology, in philosophy or in logic—not even in grammar. The revival of learning had led many away from Christ; intellectual culture must be used as a means of bringing them back. The new learning in religion had divided Christendom; the old learning of the faith, once delivered to the saints, was to reconcile them. This was the problem that faced Ignatius, and in his endeavour to effect a needed reformation in the individual and in society his work and the success that crowned it place him among the moral heroes of humanity.

Bibliography.—The Ignatian literature is very large. Fortunately we have in the *Acta quaedam* what is in effect the autobiography of the saint. This has been translated into English under the title of *The testament of Ignatius Loyola, being sundry acts of our Father Ignatius, under God, the first founder of the Society of Jesus, taken down from the Saint's own lips by Luis Gonzales* (London, 1900); and the above account of Ignatius is taken in most places directly from this, which is not only the best of all sources but also a valuable corrective of the later and more imaginative works. Next to the *Acta quaedam* comes in value Polanco's Vita Ignatii Loiolae, which is published in the *Monumenta historica Societatis Jesu* now in progress. Polanco was the saint's secretary towards the end of his life. Ribadeneira, who as a youth had been associated with the founder, wrote his *Vida del S. Ignacio de Loyola* (Madrid, 1594), based on an early Latin work (Naples, 1572). Bartole, the official biographer, wrote his *Della vita e dell' instituto di S. Ignatio* (Rome, 1650, 1659); Genelli wrote *Das Leben des heiligen Ignatius von Loyola* (Innsbruck, 1848); Nicolas Orlandinus gives a life in the first volume of the *Historiae Societatis Jesu* (Rome, 1615). It would be impossible to give a list even of the other lives, most of which are without value as histories, being

written mainly for edification. But the student may be referred to the modern books Henri Joli's *St Ignace de Loyola* (Paris, 1899), which is based on the best authorities, and to H. Müller's curious *Les Origines de la Compagnie de Jésus* (Paris, 1898), in which the author tries to establish a Mahommedan origin for many of the ideas adopted by the saint.

The literature connected with the *Spiritual Exercises* is also large. It will be sufficient here to mention: *A Book of Spiritual Exercises, written by Garcias de Cisneros* (London, 1876); the official Latin text in the third volume of the Avignon edition of the *Constitutions* (1830); Roothaan's *Exercitia spiritualia S. P. Ignatii de Loyola, cum versione litterali ex autographo Hispanico, notis illustrata* (Namur, 1841); Diertino, *Historia exercitiorum S. P. Ignatii de Loyola* (1887). Especially worthy of notice is P. Watrigant's *La Genèse des exercices de Saint Ignace de Loyola*, republished from *Les Études* (20th May, 20th July, 20th October 1897).

(E. Tn.)

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1 Louis de Berquin, who died on the 17th of April 1529, belonged to a noble family of Artois. He was a man of exemplary life and a friend of Erasmus and the humanists, besides being a *persona grata* at the court of Louise of Savoy and Francis I. His main offence was that he attacked the monks and clergy, and that he advocated the reading of the Scriptures by the people in the vulgar tongue.—

(W. A. P.)

LOZENGE (from the Fr. *losenge*, or *losange*; the word also appears in Span. *losanje*, and Ital. *losanga*; perhaps derived from a word meaning a stone slab laid on a grave, which appears in forms such as Provençal *lousa*, Span. *losa*, the ultimate origin of which is unknown, the Lat. *lapis*, stone, or *laus*, praise, in the sense of epitaph, have been suggested), properly a four equal-sided figure, having two acute and two obtuse angles, a rhomb or "diamond." The figure is frequently used as a bearing in heraldry and especially as a shield so shaped on which the arms of a widow or spinster are emblazoned. It is used also to denote the diamond-shaped facets of a precious stone when cut, also the diamond panes of a casement window. In the 14th century the "lozenge pattern" was a favourite design for decoration. The word is also applied to a small tablet of sugar, originally diamond shaped, containing either medical drugs or some simple flavouring, or to a tablet of any concentrated substance, such as a meat-lozenge. In the reign of James I. of Scotland (1406-1437) a Scotch gold coin having a lozenge-shaped shield with the arms of Scotland on the obverse side was called a "lozenge-lion."

LOZÈRE, a department of south-eastern France belonging to the central plateau, composed of almost the whole of Gévaudan and of some portions of the old dioceses of Uzès and Alais, districts all formerly included in the province of Languedoc. Pop. (1906) 128,016. Area, 1999 sq. m. It is bounded N. by Cantal and Haute-Loire, E. by Ardèche and Gard, S. by Gard and Aveyron and W. by Aveyron and Cantal. Lozère is mountainous throughout and in average elevation is the highest of all the French departments. It has three distinct regions—the Cévennes proper to the south-east, the *causses* to the south-west and the mountain tracts which occupy the rest of its area. The Cévennes begin (within Lozère) with Mont Aigoual, which rises to a height of more than 5100 ft.; parallel to this are the mountains of Bougès, bold and bare on their southern face, but falling gently with wooded slopes towards the Tarn which roughly limits the Cévennes on the north. To the north of the Tarn is the range of Lozère, including the peak of Finiels, the highest point of the department (5584 ft.). Farther on occurs the broad marshy plateau of Montbel, which drains southward to the Lot, northwards to the Allier, eastward by the Chassezac to the Ardèche. From this plateau extend the mountains of La Margeride, undulating granitic tablelands partly clothed with woods of oak, beech and fir, and partly covered with pastures, to which flocks are brought from lower Languedoc in summer. The highest point (Truc de Randon) reaches 5098 ft. Adjoining the Margeride hills on the west is the volcanic range of Aubrac, a pastoral district where horned cattle take the place of sheep; the highest point is 4826 ft. The *causses* of Lozère, having an area of about 564 sq. m., are calcareous, fissured and arid, but separated from each other by deep and well-watered gorges, contrasting with the desolate aspect of the plateaus. The *causse* of Sauveterre, between the Lot and the Tarn, ranges from 3000 to 3300 ft. in height; that of Méjan has nearly the same average altitude, but has peaks some 1000 ft. higher. Between these two causses the Tarn valley is among the most picturesque in France. Lozère is watered entirely by rivers rising within its own boundaries, being in this respect unique. The climate of Lozère varies greatly with the locality. The mean temperature of Mende (50° F.) is below that of Paris; that of the mountains is always low, but on the *causses* the summer is scorching and the winter severe; in the Cévennes the climate becomes mild enough at their base (656 ft.) to permit the growth of the olive. Rain falls in violent storms, causing disastrous floods. On the Mediterranean versant there are 76 in., in the Garonne basin 46 and in that of the Loire only 28. Sheep and cattle-rearing and cheese-making are the chief occupations. Bees are kept, and, among the Cévennes, silkworms. Large quantities of chestnuts are exported from the Cévennes, where they form an important article of diet. In the valley of the Lot wheat and fruit are the chief products; elsewhere rye is the chief cereal, and oats, barley, meslin and potatoes are also grown. Fruit trees and leguminous plants are irrigated by small canals (*béals*) on terraces made and maintained with much labour. Lead, zinc and antimony are found. Sawmilling, the manufacture of wooden shoes and wool-spinning are carried on; otherwise industries are few and unimportant. Of mineral springs, those of Bagnols-les-Bains are most frequented. The line of the Paris-Lyon company from Paris to Nîmes traverses the eastern border of the department, which is also served by the Midi railway with the line from Neussargues to Béziers via Marvéjols. The arrondissements are Mende, Florac and Marvéjols; the cantons number 24, the communes 198. Lozère forms the diocese of Mende and part of the ecclesiastical province of Albi. It falls within the region of the XVI. army corps, the circumscriptions of the *académie* (educational division) of Montpellier and the appeal court of Nîmes. Mende (*q.v.*) is its most important town.

LUANG-PRABANG, a town of French Indo-China, capital of the Lao state of that name, on the left bank of the Me Kong river. It lies at the foot of the pagoda hill which rises about 200 ft. above the plain on the promontory of land round which the Nam Kan winds to the main river. It has a population of about 9000 and contains the "palace" of the king of the state and several pagodas. In 1887 it was taken and sacked by the Haw or Black Flags, robber bands of Chinese soldiery, many of them survivors of the Taiping rebellion. In 1893 Siam was compelled to renounce her claims to the left bank of the Me Kong, including Luang-Prabang and the magnificent highlands of Chieng Kwang. That portion of the state which was on

the right bank of the Me Kong was not affected by the treaty, except in so far as a portion of it fell within the sixteen miles' zone within which Siam agreed not to keep troops. Trade is in the hands of Chinese or Shan traders; hill rice and other jungle products are imported from the surrounding districts by the Kha or hill people. The exports, which include rubber, gum benjamin, silk, wax, sticklac, cutch, cardamon, a little ebony, cinnamon, indigo, rhinoceros and deer horns, ivory and fish roe, formerly all passed by way of Paklai to the Me Nam, and so to Bangkok, but have now almost entirely ceased to follow that route, the object of the French government being to deflect the trade through French territory. Luang-Prabang is the terminus of navigation on the upper Me Kong and the centre of trade thereon.

LUBAO, a town in the south-western part of the province of Pampanga, Luzon, Philippine Islands, about 30 m. N.W. of Manila. Pop. (1903) 19,063. Lubao is served by the Manila & Dagupan railway, and has water communication with Manila by tidal streams and Manila Bay. Its products are, therefore, readily marketed. It lies in a low, fertile plain, suited to the growing of rice and sugar. Many of the inhabitants occupy themselves in the neighbouring nipa swamps, either preparing the nipa leaves for use in house construction, or distilling "nipa-wine" from the juice secured by tapping the blossom stalks. The language is Pampangan.

LÜBBEN, a town of Germany, in the Prussian province of Brandenburg, on the Spree, 47 m. S.S.E. of Berlin, on the railway to Görlitz. Pop. (1905) 7173. It is the chief town of the Spreewald, and has saw-mills and manufactories of hosiery, shoes and paper, and is famous for its *gurken*, or small pickling cucumbers. The poet Paul Gerhardt (1607-1676) was pastor here and is buried in the parish church.

LÜBECK, a state and city (*Freie und Hansestadt Lübeck*) of Germany. The *principality* of Lübeck, lying north of the state, is a constituent of the grand-duchy of Oldenburg (*q.v.*). The state is situated on an arm of the Baltic between Holstein and Mecklenburg-Schwerin. It consists of the city of Lübeck, the town of Travemünde, 49 villages and the country districts, embraces 115 sq. m. of territory, and had a population in 1907 of 109,265, of which 93,978 were included in the city and its immediate suburbs. The state lies in the lowlands of the Baltic, is diversified by gently swelling hills, and watered by the Trave and its tributaries, the Wakenitz and the Stecknitz. The soil is fertile, and, with the exception of forest land (14% of the whole area), is mostly devoted to market gardening. Trade is centred in the city of Lübeck.

The constitution of the free state is republican, and, by the fundamental law of 1875, amended in 1905 and again in 1907, consists of two assemblies. (1) The Senate of fourteen members, of whom eight must belong to the learned professions, and six of these again must be jurists, while of the remaining six, five must be merchants. The Senate represents the sovereignty of the state and is presided over by the *Oberbürgermeister*, who during his two years' term of office bears the title of "magnificence." (2) The House of Burgesses (Bürgerschaft), of 120 members, elected by free suffrage and exercising its powers partly in its collective capacity and partly through a committee of thirty members. Purely commercial matters are dealt with by the chamber of commerce, composed of a *praeses*, eighteen members and a secretary. This body controls the exchange and appoints brokers, shipping agents and underwriters. The executive is in the hands of the Senate, but the House of Burgesses has the right of initiating legislation, including that relative to foreign treaties; the sanction of both chambers is required to the passing of any new law. Lübeck has a court of first instance (*Amtsgericht*) and a high court of justice (*Landgericht*); from the latter appeals lie to the Hanseatic court of appeal (*Oberlandesgericht*) at Hamburg, and from this again to the supreme court of the empire (*Reichsgericht*) in Leipzig. The people are nearly all Lutherans, and education is compulsory between the ages of six and fourteen.

The estimated revenue for the year 1908-1909 amounted to about £650,000, and the expenditure to a like sum. The public debt amounted, in 1908, to about £2,518,000. Lübeck has one vote in the federal council (*Bundesrat*) of the German Empire, and sends one representative to the imperial parliament (*Reichstag*).

History of the Constitution.—At the first rise of the town justice was administered to the inhabitants by the *Vogt* (*advocatus*) of the count of Holstein. Simultaneously with its incorporation by Henry the Lion, duke of Saxony, who presented the city with its own mint toll and market, there appears a magistracy of six, chosen probably by the *Vogt* from the *Schöffen* (*scabini, probi homines*). The members of the town council had to be freemen, born in lawful wedlock, in the enjoyment of estates in freehold and of unstained repute. Vassals or servants of any lord, and tradespeople, were excluded. A third of the number had annually to retire for a year, so that two-thirds formed the sitting council. By the middle of the 13th century there were two burgomasters (*magistri burgensium*). Meanwhile, the number of magistrates (*consules*) had increased, ranging from twenty to forty and upwards. The council appointed its own officers in the various branches of the administration. In the face of so much self-government the *Vogt* presently disappeared altogether. There were three classes of inhabitants, full freemen, half freemen and guests or foreigners. People of Slav origin being considered unfree, all intermarriage with them tainted the blood; hence nearly all surnames point to Saxon, especially Westphalian, and even Flemish descent. The magistracy was for two centuries almost exclusively in the hands of the merchant aristocracy, who formed the companies of traders or "nations," such as the *Bergen-fahrer*, *Novgorod-fahrer*, *Riga-fahrer* and *Stockholm-fahrer*. From the beginning, however, tradesmen and handicraftsmen had settled in the town, all of them freemen of German parentage and with property and houses of their own. Though not eligible for the council, they shared to a certain extent in the self-government through the aldermen of each corporation or gild, of which some appear as early as the statutes of 1240. Naturally, there arose much jealousy between the gilds and the aristocratic companies, which exclusively ruled the republic. After an attempt to upset the merchants had been suppressed in 1384, the gilds succeeded, under more favourable circumstances, in 1408. The old patrician council left the city to appeal to the Hansa and to the imperial authorities, while a new council with democratic tendencies, elected chiefly from the gilds, took their place. In 1416, however, owing to the pressure brought to bear by the Hansa, by the emperor Sigismund and by Eric, king of Denmark, there was a restoration. The aristocratic government was again expelled under the dictatorship of Jürgen Wullenweber (*c.* 1492-1537), till the old order was re-established in 1535. In the constitution of 1669, under the

pressure of a large public debt, the great companies yielded a specified share in the financial administration to the leading gilds of tradesmen. Nevertheless, the seven great companies continued to choose the magistrates by co-optation among themselves. Three of the four burgomasters and two of the senators, however, had henceforth to be graduates in law. The constitution, set aside only during the French occupation, has subsequently been slowly reformed. From 1813 the popular representatives had some share in the management of the finances. But the reform committee of 1814, whose object was to obtain an extension of the franchise, had made little progress, when the events of 1848 led to the establishment of a representative assembly of 120 members, elected by universal suffrage, which obtained a place beside the senatorial government. The republic has given up its own military contingent, its coinage and its postal dues to the German Empire; but it has preserved its municipal self-government and its own territory, the inhabitants of which enjoy equal political privileges with the citizens.

The City of Lübeck.—Lübeck, the capital of the free state, was formerly the head of the Hanseatic League. It is situated on a gentle ridge between the rivers Trave and Wakenitz, 10 m. S.W. of the mouth of the former in the bay of Lübeck, 40 m. by rail N.E. of Hamburg, at the junction of lines to Eutin, Büchen, Travemünde and Strassburg (in Mecklenburg-Schwerin) and consists of an inner town and three suburbs. The former ramparts between the Trave and the old town ditch have been converted into promenades. The city proper retains much of its ancient grandeur, despite the tendency to modernize streets and private houses. Foremost among its buildings must be mentioned its five chief churches, stately Gothic edifices in glazed brick, with lofty spires and replete with medieval works of art—pictures, stained glass and tombs. Of them, the Marienkirche, built in the 13th century, is one of the finest specimens of early Gothic in Germany. The cathedral, or *Domkirche*, founded in 1173, contains some curious sarcophagi and a magnificent altarpiece in one of the chapels, while the churches of St James (*Jakobikirche*), of St Peter (*Petrikirche*) and of St Aegidius (*Aegidienkirche*) are also remarkable. The *Rathaus* (town hall) of red and black glazed brick, dating from various epochs during the middle ages, is famous for its staircase, the vaulted wine cellar of the city council beneath and magnificent wood carving. There should also be mentioned the *Schiffershaus*; the medieval gates (Holstentor, Burgtor); and the Hospital of the Holy Ghost, remarkable for ancient frescoes and altars in rich wood carving, the entrance hall of which is a 13th-century chapel, restored in 1866 and decorated in 1898. The museum preserves the most remarkable municipal archives in existence as well as valuable collections of historical documents.

The poet, Emanuel Geibel (1889), and the painter, Johann Friedrich Overbeck (1789-1869), were natives of Lübeck. This city is famous for the number and wealth of its charitable institutions. Its position as the first German emporium of the west end of the Baltic has been to some extent impaired by Hamburg and Bremen since the construction of the North Sea and Baltic Canal, and by the rapid growth and enterprise of Stettin. In order to counterbalance their rivalry, the quays have been extended, a canal was opened in 1900 between the Trave and the Elbe, the river up to the wharves has been deepened to 23 ft. or more. The river is kept open in winter by ice-breakers. A harbour was made in 1899-1900 on the Wakenitz Canal for boats engaged in inland traffic, especially on the Elbe and Elbe-Trave Canal. Lübeck trades principally with Denmark, Sweden, Finland, Russia, the eastern provinces of Prussia, Great Britain and the United States. The imports amounted in value to about £4,850,000 in 1906 and the exports to over £10,000,000. The chief articles of import are coal, grain, timber, copper, steel and wine, and the exports are manufactured goods principally to Russia and Scandivania. The industries are growing, the chief being breweries and distilleries, saw-mills and planing-mills, shipbuilding, fish-curing, the manufacture of machinery, engines, bricks, resin, preserves, enamelled and tin goods, cigars, furniture, soap and leather. Pop. (1885) 55,399; (1905) 91,541.

History.—Old Lübeck stood on the left bank of the Trave, where it is joined by the river Schwartau, and was destroyed in 1138. Five years later Count Adolphus II. of Holstein founded new Lübeck, a few miles farther up, on the peninsula Buku, where the Trave is joined on the right by the Wakenitz, the emissary of the lake of Ratzeburg. An excellent harbour, sheltered against pirates, it became almost at once a competitor for the commerce of the Baltic. Its foundation coincided with the beginning of the advance of the Low German tribes of Flanders, Friesland and Westphalia along the southern shores of the Baltic—the second great emigration of the colonizing Saxon element. In 1140 Wagria, in 1142 the country of the Polabes (Ratzeburg and Lauenburg), had been annexed by the Holtsaetas (the Transalbingian Saxons). From 1166 onwards there was a Saxon count at Schwerin. Frisian and Saxon merchants from Soest, Bardowiek and other localities in Lower Germany, who already navigated the Baltic and had their factory in Gotland, settled in the new town, where Wendish speech and customs never entered. About 1157 Henry the Lion, duke of Saxony, forced his vassal, the count of Holstein, to give up Lübeck to him; and in 1163 he removed thither the episcopal see of Oldenburg (Stargard), founding at the same time the dioceses of Ratzeburg and Schwerin. He issued the first charter to the citizens, and constituted them a free Saxon community having their own magistrate, an advantage over all other towns of his dominions. He invited traders of the north to visit his new market free of toll and custom, providing his subjects were promised similar privileges in return. From the beginning the king of Denmark granted them a settlement for their herring fishery on the coast of Schoonen. Adopting the statutes of Soest in Westphalia as their code, Saxon merchants exclusively ruled the city. In concurrence with the duke's *Vogt* (*advocatus*) they recognized only one right of judicature within the town, to which nobles as well as artisans had to submit. Under these circumstances the population grew rapidly in wealth and influence by land and sea, so that, when Henry was attainted by the emperor, Frederick I., who came in person to besiege Lübeck in 1181, this potentate, "in consideration of its revenues and its situation on the frontier of the Empire," fixed by charter, dated the 19th of September 1188, the limits, and enlarged the liberties, of the free town. In the year 1201 Lübeck was conquered by Waldemar II. of Denmark. But in 1223 it regained its liberty, after the king had been taken captive by the count of Schwerin. In 1226 it was made a free city of the Empire by Frederick II., and its inhabitants took part with the enemies of the Danish king in the victory of Bornhövede in July 1227. The citizens repelled the encroachments of their neighbours in Holstein and in Mecklenburg. On the other hand their town, being the principal emporium of the Baltic by the middle of the 13th century, acted as the firm ally of the Teutonic knights in Livonia. Emigrants founded new cities and new sees of Low German speech among alien and pagan races; and thus in the course of a century the commerce of Lübeck had supplanted that of Westphalia. In connexion with the Germans at Visby, the capital of Gotland, and at Riga, where they had a house from 1231, the people of Lübeck with their armed vessels scoured the sea between the Trave and the Neva. They were encouraged by papal bulls in their contest for the rights of property in wrecks and for the protection of shipping against pirates and slave-hunters. Before the close of the century the statutes of Lübeck were adopted by most Baltic towns having a German population, and Visby protested in vain against the city on the Trave having become the court of appeal for nearly all these cities, and even for the German settlement in Russian Novgorod. In course of time more than a hundred places were embraced in this relation, the last vestiges of which did not disappear until the beginning of the 18th century. From about 1299 Lübeck presided over a league of cities, Wismar, Rostock, Stralsund, Greifswald and some smaller ones, and this Hansa of towns became heir to a Hansa of traders simultaneously on the eastern and the western sea, after Lübeck and her confederates had been admitted to the same privileges with Cologne, Dortmund and Soest at Bruges and in the steelyards of London, Lynn and Boston. The union held its own, chiefly along the maritime outskirts of the Empire, rather against the will of king and emperor, but nevertheless Rudolph of Habsburg and several of his successors issued new charters to Lübeck. As early as 1241 Lübeck, Hamburg and Soest had combined to secure their highways against robber knights. Treaties to enforce the public peace were concluded in 1291 and 1338 with the dukes of Brunswick, Mecklenburg and Pomerania, and the count of Holstein. Though the great federal armament against Waldemar IV., the destroyer of Visby, was decreed by the city representatives assembled at Cologne in 1367, Lübeck was the leading spirit in the war which ended with the surrender of Copenhagen and the peace concluded at Stralsund on the 24th of May 1370. Her burgomaster, Brun Warendorp, who commanded the combined naval and land forces, died on the field of battle. In 1368 the seal of the city, a double-headed eagle, which in the 14th century took the place of the more ancient ship, was adopted as the common seal of the confederated towns (*civitates maritimae*), some seventy in number. Towards the end of the 15th century the power of the Hanseatic League began to decline, owing to the rise of Burgundy in the west, of Poland and Russia in the east and the emancipation of the Scandinavian kingdom from the union of Calmar. Still Lübeck, even when

nearly isolated, strove to preserve its predominance in a war with Denmark (1501-12), supporting Gustavus Vasa in Sweden, lording it over the north of Europe during the years 1534 and 1535 in the person of Jürgen Wullenweber, the democratic burgomaster, who professed the most advanced principles of the Reformation, and engaging with Sweden in a severe naval war (1536-70).

But the prestige and prosperity of the town were beginning to decline. Before the end of the 16th century the privileges of the London Steelyard were suppressed by Elizabeth. As early as 1425 the herring, a constant source of early wealth, began to forsake the Baltic waters. Later on, by the discovery of a new continent, commerce was diverted into new directions. Finally, with the Thirty Years' War, misfortunes came thick. The last Hanseatic diet met at Lübeck in 1630, shortly after Wallenstein's unsuccessful attack on Stralsund; and from that time merciless sovereign powers stopped free intercourse on all sides. Danes and Swedes battled for the possession of the Sound and for its heavy dues. The often changing masters of Holstein and Lauenburg abstracted much of the valuable landed property of the city and of the chapter of Lübeck. Towards the end of the 18th century there were signs of improvement. Though the Danes temporarily occupied the town in 1801, it preserved its freedom and gained some of the chapter lands when the imperial constitution of Germany was broken up by the act of February 1803, while trade and commerce prospered for a few years. But in November 1806, when Blücher, retiring from the catastrophe of Jena, had to capitulate in the vicinity of Lübeck, the town was sacked by the French. Napoleon annexed it to his empire in December 1810. But it rose against the French in March 1813, was re-occupied by them till the 5th of December, and was ultimately declared a free and Hanse town of the German Confederation by the act of Vienna of the 9th of June 1815. The Hanseatic League, however, having never been officially dissolved, Lübeck still enjoyed its traditional connexion with Bremen and Hamburg. In 1853 they sold their common property, the London Steelyard; until 1866 they enlisted by special contract their military contingents for the German Confederation, and down to 1879 they had their own court of appeal at Lübeck. Lübeck joined the North German Confederation in 1866, profiting by the retirement from Holstein and Lauenburg of the Danes, whose interference had prevented as long as possible a direct railway between Lübeck and Hamburg. On the 27th of June 1867 Lübeck concluded a military convention with Prussia, and on the 11th of August 1868 entered the German Customs Union (*Zollverein*), though reserving to itself certain privileges in respect of its considerable wine trade and commerce with the Baltic ports.

See E. Deecke, *Die Freie und Hansestadt Lübeck* (4th ed., Lübeck, 1881) and *Lübische Geschichten und Sagen* (Lübeck, 1891); M. Hoffmann, *Geschichte der Freien und Hansestadt Lübeck* (Lübeck, 1889-1892) and *Chronik von Lübeck* (Lübeck, 1908); *Die Freie und Hansestadt Lübeck*, published by *Die geographische Gesellschaft in Lübeck* (Lübeck, 1891); C. W. Pauli, *Lübecksche Zustände im Mittelalter* (Lübeck, 1846-1878); J. Geffcken, *Lübeck in der Mitte des 16ten Jahrhunderts* (Lübeck, 1905); P. Hasse, *Die Anfange Lübecks* (Lübeck, 1893); H. Bödeker, *Geschichte der Freien und Hansestadt Lübeck* (Lübeck, 1898); A. Holm, *Lübeck, die Freie und Hansestadt* (Bielefeld, 1900); G. Waitz, *Lübeck unter Jürgen Wullenweber* (Berlin, 1855-1856); Klug, *Geschichte Lübecks während der Vereinigung mit dem französischen Kaiserreich* (Lübeck, 1857); F. Frensdorff, *Die Stadt- und Gerichtsverfassung Lübecks im 12. und 13. Jahrhundert* (Lübeck, 1861); the *Urkundenbuch der Stadt Lübeck* (Lübeck, 1843-1904); the *Lübecker Chroniken* (Leipzig, 1884-1903); and the *Zeitschrift des Vereins für lübeckische Geschichte* (Lübeck, 1860 fol.).

(R. P.; P. A. A.)

LUBLIN, a government of Russian Poland, bounded N. by Siedlce, E. by Volhynia (the Bug forming the boundary), S. by Galicia, and W. by Radom (the Vistula separating the two). Area, 6499 sq. m. The surface is an undulating plain of Cretaceous deposits, 800 to 900 ft. in altitude, and reaching in one place 1050 ft. It is largely covered with forests of oak, beech and lime, intersected by ravines and thinly inhabited. A marshy lowland extends between the Vistula and the Wieprz. The government is drained by the Vistula and the Bug, and by their tributaries the Wieprz, San and Tanev. Parts of the government, being of black earth, are fertile, but other parts are sandy. Agriculture is in good condition. Many Germans settled in the government before immigration was stopped in 1887; in 1897 they numbered about 26,000. Rye, oats, wheat, barley and potatoes are the chief crops, rye and wheat being exported. Flax, hemp, buckwheat, peas, millet and beetroot are also cultivated. Horses are carefully bred. In 1897 the population was 1,165,122, of whom 604,886 were women. The Greek Orthodox (chiefly Little Russians in the south-east) amounted to 20.1% of the whole; Roman Catholics (*i.e.* Poles) to 62.8%; Jews to 14.2%; and Protestants to 2.8%. The urban population was 148,196 in 1897. The estimated population in 1906 was 1,362,500. Industrial establishments consist chiefly of distilleries, sugar-works, steam flour-mills, tanneries, saw-mills and factories of bent-wood furniture. Domestic industries are widely developed in the villages. River navigation employs a considerable portion of the population. The government is divided into ten districts, the chief towns of which, with their populations in 1897, are—Lublin, capital of the province (50,152); Biegoray (6286); Cholm (19,236); Hrubieszow (10,699); Yanów (7927); Krasnystaw or Kraznostav (8879); Lubartow (5249); Nova-Alexandrya or Pulawy (3892); Samostye (12,400); and Tomaszów (6224).

LUBLIN, a town of Russian Poland, capital of the government of the same name, 109 m. by rail S.E. of Warsaw, on a small tributary of the Wieprz. Pop. (1873) 28,900; (1897) 50,152. It is the most important town of Poland after Warsaw and Lodz, being one of the chief centres of the manufacture of thread-yarn, linen and hempen goods and woollen stuffs; there is also trade in grain and cattle. It has an old citadel, several palaces of Polish nobles and many interesting churches, and is the headquarters of the XIV. army corps, and the see of a Roman Catholic bishop. The cathedral dates from the 16th century. Of the former fortifications nothing remains except the four gates, one dating from 1342.

Lublin was in existence in the 10th century, and has a church which is said to have been built in 986. During the time the Jagellon dynasty ruled over Lithuania and Poland it was the most important city between the Vistula and the Dnieper, having 40,000 inhabitants (70,000 according to other authorities) and all the trade with Podolia, Volhynia and Red Russia. Indeed, the present town is surrounded with ruins, which prove that it formerly covered a much larger area. But it was frequently destroyed by the Tatars (*e.g.* 1240) and Cossacks (*e.g.* 1477). In 1568-1569 it was the seat of the stormy convention at which the union between Poland and Lithuania was decided. In 1702 another convention was held in Lublin, in favour of Augustus II. and against Charles XII. of Sweden, who carried the town by assault and plundered it. In 1831 Lublin was taken by the Russians. The surrounding country is rich in reminiscences of the struggle of Poland for independence.

LUBRICANTS. Machines consist of parts which have relative motion and generally slide and rub against each other. Thus the axle of a cart or railway vehicle is pressed against a metallic bearing surface supporting the body of the vehicle, and the two opposed surfaces slide upon each other and are pressed together with great force. If the metallic surfaces be clean, the speed of rubbing high, and the force pressing the surfaces together considerable, then the latter will abrade each other, become hot and be rapidly destroyed. It is possible, however, to prevent the serious abrasion of such opposing surfaces, and largely to reduce the frictional resistance they oppose to relative motion by the use of *lubricants* (Lat. *lubricare*, *lubricus*, slippery). These substances are caused to insinuate themselves between the surfaces, and have the property of so separating them as to prevent serious abrasion. The solid and semi-solid lubricants seem to act as rollers between the surfaces, or form a film between them which itself suffers abrasion or friction. The liquid lubricants, however, maintain themselves as liquid films between the surfaces, upon which the bearing floats. The frictional resistance is then wholly in the fluid. Even when lubricants are used the friction, *i.e.* the resistance to motion offered by the opposing surfaces, is considerable. In the article Friction will be found a statement of how friction is measured and the manner in which it is expressed. The coefficient of friction is obtained by dividing the force required to cause the surfaces to slide over each other by the load pressing them together. For clean unlubricated surfaces this coefficient may be as great as 0.3, whilst for well-lubricated cylindrical bearings it may be as small as 0.0006. Engineers have, therefore, paid particular attention to the design of bearings with the object of reducing the friction, and thus making use of as much as possible of the power developed by prime movers. The importance of doing this will be seen when it is remembered that the energy wasted is proportional to the coefficient of friction, and that the durability of the parts depends upon the extent to which they are separated by the lubricant and thus prevented from injuring each other.

There is great diversity in the shapes of rubbing surfaces, the loads they have to carry vary widely, and the speed of rubbing ranges from less than one foot to thousands of feet per minute. There is also a large number of substances which act as lubricants, some being liquids and others soft solids. In many instruments or machines where the surfaces in contact which have to slide upon each other are only lightly pressed together, and are only occasionally given relative motion, the lubricant is only needed to prevent abrasion. Microscopes and mathematical instruments are of this kind. In such cases, the lubricant which keeps the surfaces from abrading each other is a mere contamination film, either derived from the air or put on when the surfaces are finished. When such lubricating films are depended upon, the friction surfaces should be as hard as possible and, if practicable, of dissimilar metals. In the absence of a contamination film, most metals, if rubbed when in contact, will immediately adhere to each other. A large number of experiments have been made to ascertain the coefficient of friction under these imperfect conditions of lubrication. Within wide limits of load, the friction is proportional to the pressure normal to the surfaces and is, therefore, approximately independent of the area of the surfaces in contact. Although the static coefficient is often less than the kinetic at very low speeds, within wide limits the latter coefficient decreases with increasing speed. These laws apply to all bearings the velocity of rubbing of which is very small, or which are lubricated with solid or semi-solid materials.

When the speed of rubbing is considerable and the contamination film is liable to be destroyed, resort is had to lubricants which possess the power of keeping the surfaces apart, and thereby reducing the friction. The constant application of such substances is necessary in the case of such parts of machine tools as slide rests, the surfaces of which only move relatively to each other at moderate speeds, but which have to carry heavy loads. In all ordinary cases, the coefficient of friction of flat surfaces, such as those of slide blocks or pivot bearings, is high, owing to the fact that the lubricant is not easily forced between the surfaces. In the case of cylindrical bearing surfaces, such as those of journals and spindles, owing to the fact that the radius of the bearing surface is greater than that of the journal or spindle, the lubricant, if a liquid, is easily drawn in and entirely separates the surfaces (see LUBRICATION). Fortunately, cylindrical bearings are by far the most common and important form of bearing, and they can be so lubricated that the friction coefficient is very low. The lubricant, owing to its viscosity, is forced between the surfaces and keeps them entirely apart. This property of viscosity is one of the most important possessed by liquid lubricants. Some lubricants, such as the oils used for the light spindles of textile machinery, are quite thin and limpid, whilst others, suitable for steam engine cylinders and very heavy bearings, are, at ordinary temperatures, as thick as treacle or honey. Generally speaking, the greater the viscosity of the lubricant the greater the load the bearing will carry, but with thick lubricants the frictional coefficient is correspondingly high. True lubricants differ from ordinary liquids of equal viscosity inasmuch as they possess the property of “oiliness.” This is a property which enables them to maintain an unbroken film between surfaces when the loads are heavy. It is possessed most markedly by vegetables and animal oils and fats, and less markedly by mineral oils. In the case of mineral lubricating oils from the same source, the lower the specific gravity the greater the oiliness of the liquid, as a rule. Mixtures of mineral oil with animal or vegetable oil are largely used, one class of oil supplying those qualities in which the other is deficient. Thus the mineral oils, which are comparatively cheap and possess the important property of not becoming oxidized into gummy or sticky substances by the action of the air, which also are not liable to cause spontaneous ignition of cotton waste, &c., and can be manufactured of almost any desired viscosity, but which on the other hand are somewhat deficient in the property of oiliness, are mixed with animal or vegetable oils which possess the latter property in marked degree, but are liable to gum and become acid and to cause spontaneous ignition, besides being comparatively expensive and limited in quantity. Oils which become acid attack the bearings chemically, and those which oxidize may become so thick that they fail to run on to the bearings properly.

The following table shows that the permissible load on bearings varies greatly:—

Description of Bearing.	Load in lb per sq. in.
Hard steel bearings on which the load is intermittent, such as the crank pins of shearing machines	3000
Bronze crosshead neck journals	1200
Crank pins of large slow engines	800-900
Crank pins of marine engines	400-500
Main crank-shaft bearings, slow marine	600
Main crank-shaft bearings, fast marine	400
Railway coach journals	300-400
Fly-wheel shaft journals	150-200
Small engine crank pins	150-200
Small slide blocks, marine engines	100
Stationary engine slide block	25-125
Stationary engine slide block, usually	30-60
Propeller thrust bearings	50-70
Shafts in cast iron steps, high speed	15

Solid Lubricants.—Solid substances, such as graphite or plumbago, soapstone, &c., are used as lubricants when there is some objection to liquids or soft solids, but the surfaces between which they are placed should be of very hard materials. They are frequently mixed with oils or greases, the lubricating properties of which they improve.

Semi-solid Lubricants.—The contrast in lubricating properties between mineral and fatty oils exists also in the case of a pure mineral grease like vaseline and an animal fat such as tallow, the latter possessing in a far greater degree the property of greasiness. A large number of lubricating greases are made by incorporating or emulsifying animal and vegetable fats with soap and water; also by thickening mineral lubricating oils with soap. Large quantities of these greases are used with very good results for the lubrication of railway waggon axles, and some of them are excellent lubricants for the bearings of slow

moving machinery. Care must be taken, however, that they do not contain excess of water and are not adulterated with such useless substances as china clay; also, that they melt as a whole, and that the oil does not run down and leave the soap. This is liable to occur with badly made greases, and hot bearings are the result. Except in special cases, greases should not be used for quick-running journals, shafts or spindles, on account of the high frictional resistance which they offer to motion. In the case of fats and greases whose melting points are not much above the temperature of surrounding objects it generally happens that the lubricating films are so warmed by friction that they actually melt and act as oils. These lubricants are generally forced into the bearings by a form of syringe fitted with a spring piston, or are squeezed between the faces by means of a screw-plug.

Liquid Lubricants.—Generally speaking, all bearings which it is necessary should run with as little friction as possible must be supplied with liquid lubricants. These may be of animal, vegetable or mineral origin. The mineral oils are mixtures of hydrocarbons of variable viscosity, flashing-point, density and oiliness. They are obtained by distillation from American, Russian and other petroleums. The fixed oils obtained from animal and vegetable substances are not volatile without decomposition, and are found ready made in the tissues of animals and plants. Animal oils are obtained from the adipose tissue by simple heat or by boiling with water. They are usually either colourless or yellow. The oils of plants occur usually in the seeds or fruit, and are obtained either by expression or by means of solvents such as ether or petroleum. They are of various shades of yellow and green, the green colour being due to the presence of chlorophyll. The fundamental difference between fixed oils and mineral oils exists in their behaviour towards oxygen. Mineral oils at ordinary temperatures are indifferent to oxygen, but all fixed oils combine with it and thicken or gum more or less, generating heat at the same time. Such oils are, therefore, dangerous if dropped upon silk, cotton or woollen waste or other combustible fibrous materials, which are thus rendered liable to spontaneous ignition.

Liquid lubricants are used for all high speed bearings. In some cases the rubbing surfaces work in a bath of the lubricant, which can then reach all the rubbing parts with certainty. Small engines for motor cars or road waggons are often lubricated in this way. In the case of individual bearings, such as those of railway vehicles, a pad of cotton, worsted and horse hair is kept saturated with the lubricant and pressed against the under side of the journal. The journal is thus kept constantly wetted with oil, and the film is forced beneath the brass as the axle rotates. In many cases, oil-ways and grooves are cut in the bearings, and the lubricant is allowed to run by gravity into them and thus finds its way between the opposing surfaces. To secure a steady feed various contrivances are adopted, the most common being a wick of cotton or worsted used as a siphon. In cases where it is important that little if any wear should take place, the lubricant is forced by means of a pump between the friction surfaces and a constant film of oil is thereby maintained between them.

For the spindles of small machines such as clocks, watches and other delicate mechanisms, which are only lubricated at long intervals and are often exposed to extremes of temperature, the lubricant must be a fluid oil as free as possible from tendency to gum or thicken by oxidation or to corrode metal, and must often have a low freezing-point. It must also possess a maximum of “oiliness.” The lubricants mostly used for such purposes are obtained from porpoise or dolphin jaw oils, bean oil, hazel nut oil, neatsfoot oil, sperm oil or olive oil. These oils are exposed for some time to temperatures as low as the mechanism is required to work at, and the portion which remains fluid is separated and used. Free acid should be entirely eliminated by chemical refining. A little good mineral oil may with advantage be mixed with the fatty oil.

For all ordinary machinery, ranging from the light ring spindles of textile mills to the heavy shafts of large engines, mineral oils are almost universally employed, either alone or mixed with fatty oils, the general rule being to use pure mineral oils for bath, forced or circulating pump lubrication, and mixed oils for drop, siphon and other less perfect methods of lubrication. Pure mineral oils of relatively low viscosity are used for high speeds and low pressures, mixed oils of greater viscosity for low speeds and high pressures. In selecting oils for low speeds and great pressures, viscosity must be the first consideration, and next to that “oiliness.” If an oil of sufficiently high viscosity be used, a mineral oil may give a result as good or better than a pure fixed oil; a mixed oil may give a better result than either. If a mineral oil of sufficient viscosity be not available, then a fixed oil or fat may be expected to give the best result.

In special cases, such as in the lubrication of textile machines, where the oil is liable to be splashed upon the fabric, the primary consideration is to use an oil which can be washed out without leaving a stain. Pure fixed oils, or mixtures composed largely of fixed oils, are used for such purposes.

In other special cases, such as marine engines working in hot places, mixtures are used of mineral oil with rape or other vegetable oil artificially thickened by blowing air through the heated oil, and known as “blown” oil or “soluble castor oil.”

In the lubrication of the cylinders and valves of steam, gas and oil engines, the lubricant must possess as much viscosity as possible at the working temperature, must not evaporate appreciably and must not decompose and liberate fatty acids which would corrode the metal and choke the steam passages with metallic soaps; for gas and oil engines the lubricant must be as free as possible from tendency to decompose and deposit carbon when heated. For this reason steam cylinders and valves should be lubricated with pure mineral oils of the highest viscosity, mixed with no more fixed oil than is necessary to ensure efficient lubrication. Gas and oil engines also should be lubricated with pure mineral oils wherever possible.

For further information on the theory and practice of lubrication and on the testing of lubricants, see *Friction and Lost Work in Machinery and Mill Work*, by R. H. Thurston (1903); and *Lubrication and Lubricants*, by L. Archbutt and R. M. Deeley (1906).

(R. M. D.)

LUBRICATION.

Our knowledge of the action of oils and other viscous fluids in diminishing friction and wear between solid surfaces from being purely empirical has become a connected theory, based on the known properties of matter, subjected to the definition of mathematical analysis and verified by experiment. The theory was published in 1886 (*Phil. Trans.*, 1886, 177, pp. 157-234); but it is the purpose of this article not so much to explain its application, as to give a brief account of the introduction of the misconceptions that so long prevailed, and of the manner in which their removal led to its general acceptance.

Friction, or resistance to tangential shifting of matter over matter, whatever the mode and arrangement, differs greatly according to the materials, but, like all material resistance, is essentially limited. The range of the limits in available materials has a primary place in determining mechanical possibilities, and from the earliest times they have demanded the closest attention on the part of all who have to do with structures or with machines, the former being concerned to find those materials and their arrangements which possess the highest limits, and the latter the materials in which the limits are least. Long before the reformation of science in the 15th and 16th centuries both these limits had formed the subject of such empirical research as disclosed numerous definite although disconnected circumstances under which they could be secured; and these, however far from the highest and lowest, satisfied the exigencies of practical mechanics at the time, thus initiating the method of extending knowledge which was to be subsequently recognized as the only basis of physical philosophy. In this purely empirical research the conclusion arrived at represented the results for the actual circumstance from which they were drawn, and thus afforded no place for theoretical discrepancies. However, in the attempts at generalization which followed the reformation of science, opportunity was afforded for such discrepancies in the mere enunciation of the circumstances in which the so-called laws of friction of motion are supposed to apply. The circumstances in which the great amount of empirical research was conducted as to the resistance between the clean, plane, smooth surfaces of rigid bodies moving over

each other under pressure, invariably include the presence of air at atmospheric pressure around, and to some extent between, the surfaces; but this fact had received no notice in the enunciation of these laws, and this constitutes a theoretical departure from the conditions under which the experience had been obtained. Also, the theoretical division of the law of frictional resistance into two laws—one dealing with the limit of rest, and the other asserting that the friction of motion, which is invariably less in similar circumstances than that of rest, is independent of the velocity of sliding—involves the theoretical assumption that there is no asymptotic law of diminution of the resistance, since, starting from rest, the rate of sliding increases. The theoretical substitution of ideal rigid bodies with geometrically regular surfaces, sliding in contact under pressure at the common regular surface, for the aërated surfaces in the actual circumstances, and the theoretical substitution of the absolute independence of the resistance of the rate of sliding for the limited independence in the actual circumstances, prove the general acceptance of the conceptions—(1) that matter can slide over matter under pressure at a geometrically regular surface; (2) that, however much the resistance to sliding under any particular pressure (the coefficient of friction) may depend on the physical properties of the materials, the sliding under pressure takes place at the geometrically regular surface of contact of the rigid bodies; and (3) as the consequence of (1) and (2), that whatever the effect of a lubricant, such as oil, might have, it could be a physical surface effect. Thus not only did these general theoretical conceptions, resulting from the theoretical laws of friction, fail to indicate that the lubricant may diminish the resistance by the mere mechanical separation of the surfaces, but they precluded the idea that such might be the case. The result was that all subsequent attempts to reduce the empirical facts, where a lubricant was used, to such general laws as might reveal the separate functions of the complex circumstances on which lubrication depends, completely failed. Thus until 1883 the science of lubrication had not advanced beyond the empirical stage.

This period of stagnation was terminated by an accidental phenomenon observed by Beauchamp Tower, while engaged on his research on the friction of the journals of railway carriages. His observation led him to a line of experiments which proved that in these experiments the general function of the lubricant was the mechanical separation of the metal surfaces by a layer of fluid of finite thickness, thus upsetting the preconceived ideas as expressed in the laws of the friction of motion. On the publication of Tower's reports (*Proc. Inst. M.E.,* November 1883), it was recognized by several physicists (*B.A. Report*, 1884, pp. 14, 625) that the evidence they contained afforded a basis for further study of the actions involved, indicating as it did the circumstances—namely, the properties of viscosity and cohesion possessed by fluids—account of which had not been taken in previous conclusions. It also became apparent that continuous or steady lubrication, such as that of Tower's experiments, is only secured when the solid surfaces separated by the lubricant are so shaped that the thickness at the ingoing side is greater than that at the outgoing side.

When the general equations of viscous fluids had been shown as the result of the labours of C. L. M. H. Navier,[1] A. L. Cauchy,[2] S. D. Poisson,[3] A. J. C. Barré de St Venant,[4] and in 1845 of Sir G. Gabriel Stokes,[5] to involve no other assumption than that the stresses, other than the pressure equal in all directions, are linear functions of the distortional rates of strain 90
multiplied by a constant coefficient, it was found that the only solutions of which the equations admitted, when applied to fluids flowing between fixed boundaries, as water in a pipe, were singular solutions for steady or steady periodic motion, and that the conclusions they entailed, that the resistance would be proportional to the velocity, were for the most part directly at variance with the common experience that the resistances varied with the square of the velocity. This discrepancy was sometimes supposed to be the result of eddies in the fluid, but it was not till 1883 that it was discovered by experiments with colour bands that, in the case of geometrically similar boundaries, the existence or non-existence of such eddies depended upon a definite relation between the mean velocity (U) of the fluid, the distance between the boundaries, and the ratio of the coefficient of viscosity to the density (μ/ρ), expressed by $UD\rho/\mu = K$, where K is a physical constant independent of units, which has a value between 1900 and 2000, and for parallel boundaries D is four times the area of the channel divided by the perimeter of the section (*Phil. Trans.*, 1883, part iii. 935-982). K is thus a criterion at which the law of resistance to the mean flow changes suddenly (as U increases), from being proportional to the flow, to a law involving higher powers of the velocity at first, but as the rates increase approaching an asymptote in which the power is a little less that the square.

This sudden change in the law of resistance to the flow of fluid between solid boundaries, depending as it does on a complete change in the manner of the flow—from direct parallel flow to sinuous eddying motion—serves to determine analytically the circumstances as to the velocity and the thickness of the film under which any fluid having a particular coefficient of viscosity can act the part of a lubricant. For as long as the circumstances are such that $UD\rho/\mu$ is less than K, the parallel flow is held stable by the viscosity, so that only one solution is possible—that in which the resistance is the product of μ multiplied by the rate of distortion, as $\mu(du/dy)$; in this case the fluid has lubricating properties. But when the circumstances are such that $UD\rho/\mu$ is greater than K, other solutions become possible, and the parallel flow becomes unstable, breaks down into eddying motion, and the resistance varies as ρu^n, which approximates to $\rho u^{1.78}$ as the velocity increases; in this state the fluid has no lubricating properties. Thus, within the limits of the criterion, the rate of displacement of the momentum of the fluid is insignificant as compared with the viscous resistance, and may be neglected; while outside this limit the direct effects of the eddying motion completely dominate the viscous resistance, which in its turn may be neglected. Thus K is a criterion which separates the flow of fluid between solid surfaces as definitely as the flow of fluid is separated from the relative motions in elastic solids, and it is by the knowledge of the limit on which this distinction depends that the theory of viscous flow can with assurance be applied to the circumstance of lubrication.

Until the existence of this physical constant was discovered, any theoretical conclusions as to whether in any particular circumstances the resistance of the lubricant would follow the law of viscous flow or that of eddying motion was impossible. Thus Tower, being unaware of the discovery of the criterion, which was published in the same year as his reports, was thrown off the scent in his endeavour to verify the evidence he had obtained as to the finite thickness of the film by varying the velocity. He remarks in his first report that, "according to the theory of fluid motion, the resistance would be as the square of the velocity, whereas in his results it did not increase according to this law." The rational theory of lubrication does not, however, depend solely on the viscosity within the interior of fluids, but also depends on the surface action between the fluid and the solid. In many respects the surface actions, as indicated by surface tension, are still obscure, and there has been a general tendency to assume that there may be discontinuity in the velocity at the common surface. But whatever these actions may be in other respects, there is abundant evidence that there is no appreciable discontinuity in the velocity at the surfaces as long as the fluid has finite thickness. Hence in the case of lubrication the velocities of the fluid at the surfaces of the solids are those of the solid. In as far as the presence of the lubricant is necessary, such properties as cause oil in spite of its surface tension to spread even against gravity over a bright metal surface, while mercury will concentrate into globules on the bright surface of iron, have an important place in securing lubrication where the action is intermittent, as in the escapement of a clock. If there is oil on the pallet, although the pressure of the tooth causes this to flow out laterally from between the surfaces, it goes back again by surface tension during the intervals; hence the importance of using fluids with low surface tension like oil, or special oils, when there is no other means of securing the presence of the lubricant.

> The differential equations for the equilibrium of the lubricant are what the differential equations of viscous fluid in steady motion become when subject to the conditions necessary for lubrication as already defined—(1) the velocity is below the critical value; (2) at the surfaces the velocity of the fluid is that of the solid; (3) the thickness of the film is small compared with the lateral dimensions of the surfaces and the radii of curvature of the surfaces. By the first of these conditions all the terms having ρ as a factor may be neglected, and the equations thus become the equations of equilibrium of the fluid; as such, they are applicable to fluid whether incompressible or elastic, and however the pressure may affect the viscosity. But the analysis is greatly simplified by omitting all terms depending on compressibility and by taking μ constant; this may be done without loss of generality in a qualitative sense. With these limitations we have for the differential equation of the equilibrium of the lubricant:—
>
> $$0 = \frac{dp}{} - \mu^2 u, \text{ \&c., \&c., } 0 = \frac{du}{} + \frac{dv}{} + \frac{dw}{}$$

$$\frac{dx}{} \qquad \frac{dx}{dx} \quad \frac{dx}{dx} \quad \frac{dx}{dx}$$
$$0 = p_{yx} - \mu \left(\frac{du}{dy} + \frac{dv}{dx} \right), \text{ \&c., \&c.} \tag{1}$$

These are subject to the boundary conditions (2) and (3). Taking x as measured parallel to one of the surfaces in the direction of relative motion, y normal to the surface and z normal to the plane of xy by condition (3), we may without error disregard the effect of any curvature in the surfaces. Also v is small compared with u and w, and the variations of u and w in the directions x and z are small compared with their variation in the direction y. The equations (1) reduce to

$$0 = \frac{dp}{dx} - \mu \frac{d^2u}{dy^2}, \; 0 = \frac{dp}{dy}, \; 0 = \frac{dp}{dz} - \mu \frac{d^2w}{dy^2}, \; 0 = \frac{du}{dx} + \frac{dv}{dy} + \frac{dw}{dz}$$
$$0 = p_{yx} - \mu \frac{du}{dy}, \; 0 = p_{yz} - \mu \frac{dw}{dy}, \; p_{xz} = 0. \tag{2}$$

For the boundary conditions, putting f(x, z) as limiting the lateral area of the lubricant, the conditions at the surfaces may be expressed thus:—

$$\text{when } y = 0, \quad u = U_0, \quad w = 0, \quad v = 0$$
$$\text{when } y = h, \quad u = U_1, \quad w = 0, \quad v_1, = U_1 \frac{dh}{dx} + V_1$$
$$\text{when } f(x, z) = 0, \quad p = p_0 \tag{3}$$

Then, integrating the equations (2) over y, and determining the constants by equations (3), we have, since by the second of equations (2) p is independent of y,

$$u = \frac{1}{2\mu} \frac{dp}{dx} (y - h)\, y + U_0 \frac{h - y}{h} + U_1 \frac{y}{h}$$
$$w = \frac{1}{2\mu} \frac{dp}{dz} (y - h)\, y \tag{4}$$

Then, differentiating equations (4) with respect to x and z respectively, and substituting in the 4th of equations (2), and integrating from y = 0 to y = h, so that only the values of v at the surfaces may be required, we have for the differential equation of normal pressure at any point x, z, between the boundaries:—

$$\frac{d}{dx} \left(h^3 \frac{dp}{dz} \right) + \frac{d}{dz} \left(h^3 \frac{dp}{dz} \right) = 6\mu \left\{ (U_0 + U_1) \frac{dh}{dx} + 2V_1 \right\} \tag{5}$$

Again differentiating equations (4), with respect to x and z respectively, and substituting in the 5th and 6th of equations (2), and putting f_x and f_z for the intensities of the tangential stresses at the lower and upper surfaces:—

$$f_x = \mu (U_1 - U_0) \frac{1}{h} \pm \frac{h}{2} \frac{dp}{dx}$$
$$f_x = \pm \frac{h}{2} \frac{dp}{dx} \tag{6}$$

Equations (5) and (6) are the general equations for the stresses at the boundaries at x, z, when h is a continuous function of x and z, μ and ρ being constant.

For the integration of equations (6) to get the resultant stresses and moments on the solid boundaries, so as to obtain the conditions of their equilibrium, it is necessary to know how x and z at any point on the boundary enter into h, as well as the equation f(x, z) = 0, which determines the limits of the lubricating film. If y, the normal to one of the surfaces, has not the same direction for all points of this surface, in other words, if the surface is not plane, x and z become curvilinear co-ordinates, at all points perpendicular to y. Since, for lubrication, one of the surfaces must be plane, cylindrical, or a surface of revolution, we may put x = Rθ, y = r − R, and z perpendicular to the plane of motion. Then, if the data are sufficient, the resultant stresses and moments between the surfaces are obtained by integrating the intensity of the stress and moments of intensity of stress over the surface.

This, however, is not the usual problem that arises. What is generally wanted is to find the thickness of the film where least (h_0) and its angular position with respect to direction of load, to resist a definite load with a particular surface velocity. If the surfaces are plane, the general solution involves only one arbitrary constant, the least thickness (h_0); since in any particular case the variation of h with x is necessarily fixed, as in this case lubrication affords no automatic adjustment of this slope. When both surfaces are curved in the plane of motion there are at least two arbitrary constants, h_0, and φ the angular position of h_0 with respect to direction of load; while if the surfaces are both curved in a plane perpendicular to the direction of motion as well as in the plane of motion, there are three arbitrary constants, h_0, φ_0, z_0. The only constraint necessary is to prevent rotation in the plane of motion of one of the surfaces, leaving this surface free to move in any direction and to adjust its position so as to be in equilibrium under the load.

The integrations necessary for the solutions of these problems are practicable—complete or approximate—and have been effected for circumstances which include the chief cases of practical lubrication, the results having been verified by reference to Tower's experiments. In this way the verified theory is available for guidance outside the limits of experience as well as for determining the limiting conditions. But it is necessary to take into account certain subsidiary theories. These limits depend on the coefficient of viscosity, which diminishes as the temperature increases. The total work in overcoming the resistance is spent in generating heat in the lubricant, the volume of which is very small. Were it not for the escape of heat by conduction through the lubricant and the metal, lubrication would be impossible. Hence a knowledge of the empirical law of the variation of the viscosity of the lubricant with temperature, the coefficients of conduction of heat in the lubricant and in the metal, and the application of the theory of the flow of heat in the particular circumstances, are necessary adjuncts to the theory of lubrication for determining the limits of lubrication. Nor is this all, for the shapes of the solid surfaces vary with the pressure, and more particularly with the temperature.

The theory of lubrication has been applied to the explanation of the slipperiness of ice (*Mem. Manchester Lit. and Phil. Soc.*, 1899).

(O. R.)

1 *Mém. de l'Acad.* (1826), 6, p. 389.

2 *Mém. des sav. étrang.* l. 40.

3 *Mém. de l'Acad.* (1831), 10, p. 345.

4 *B.A. Report* (1846).

5 *Cambridge Phil. Trans.* (1845 and 1857).

LUCAN [Marcus Annaeus Lucanus], (a.d. 39-65), Roman poet of the Silver Age, grandson of the rhetorician Seneca and nephew of the philosopher, was born at Corduba. His mother was Acilia; his father, Marcus Annaeus Mela, had amassed great wealth as imperial procurator for the provinces. From a memoir which is generally attributed to Suetonius we learn that Lucan was taken to Rome at the age of eight months and displayed remarkable precocity. One of his instructors was the Stoic philosopher, Cornutus, the friend and teacher of Persius. He was studying at Athens when Nero recalled him to Rome and made him quaestor. These friendly relations did not last long. Lucan is said to have defeated Nero in a public poetical contest; Nero forbade him to recite in public, and the poet's indignation made him an accomplice in the conspiracy of Piso. Upon the discovery of the plot he is said to have been tempted by the hope of pardon to denounce his own mother. Failing to obtain a reprieve, he caused his veins to be opened, and expired repeating a passage from one of his poems descriptive of the death of a wounded soldier. His father was involved in the proscription, his mother escaped, and his widow Polla Argentaria survived to receive the homage of Statius under Domitian. The birthday of Lucan was kept as a festival after his death, and a poem addressed to his widow upon one of these occasions and containing information on the poet's work and career is still extant (Statius's *Silvae*, ii. 7, entitled *Genethliacon Lucani*).

Besides his principal performance, Lucan's works included poems on the ransom of Hector, the nether world, the fate of Orpheus, a eulogy of Nero, the burning of Rome, and one in honour of his wife (all mentioned by Statius), letters, epigrams, an unfinished tragedy on the subject of Medea and numerous miscellaneous pieces. His minor works have perished except for a few fragments, but all that the author wrote of the *Pharsalia* has come down to us. It would probably have concluded with the battle of Philippi, but breaks off abruptly as Caesar is about to plunge into the harbour of Alexandria. The *Pharsalia* opens with a panegyric of Nero, sketches the causes of the war and the characters of Caesar and Pompey, the crossing of the Rubicon by Caesar, the flight of the tribunes to his camp, and the panic and confusion in Rome, which Pompey has abandoned. The second book describes the visit of Brutus to Cato, who is persuaded to join the side of the senate, and his marriage a second time to his former wife Marcia, Ahenobarbus's capitulation at Corfinium and the retirement of Pompey to Greece. In the third book Caesar, after settling affairs in Rome, crosses the Alps for Spain. Massilia is besieged and falls. The fourth book describes the victories of Caesar in Spain over Afranius and Petreius, and the defeat of Curio by Juba in Africa. In the fifth Caesar and Antony land in Greece, and Pompey's wife Cornelia is placed in security at Lesbos. The sixth book describes the repulses of Caesar round Dyrrhachium, the seventh the defeat of Pompey at Pharsalia, the eighth his flight and assassination in Egypt, the ninth the operations of Cato in Africa and his march through the desert, and the landing of Caesar in Egypt, the tenth the opening incidents of the Alexandrian war. The incompleteness of the work should not be left out of account in the estimate of its merits, for, with two capital exceptions, the faults of the *Pharsalia* are such as revision might have mitigated or rendered. No such pains, certainly, could have amended the deficiency of unity of action, or supplied the want of a legitimate protagonist. The *Pharsalia* is not true to history, but it cannot shake off its shackles, and is rather a metrical chronicle than a true epic. If it had been completed according to the author's design, Pompey, Cato and Brutus must have successively enacted the part of nominal hero, while the real hero is the arch-enemy of liberty and Lucan, Caesar. Yet these defects, though glaring, are not fatal or peculiar to Lucan. The false taste, the strained rhetoric, the ostentatious erudition, the tedious harangues and far-fetched or commonplace reflections so frequent in this singularly unequal poem, are faults much more irritating, but they are also faults capable of amendment, which the writer might not improbably have removed. Great allowance should also be made in the case of one who is emulating predecessors who have already carried art to its last perfection. Lucan's temper could never have brooked mere imitation; his versification, no less than his subject, is entirely his own; he avoids the appearance of outward resemblance to his great predecessor with a persistency which can only have resulted from deliberate purpose, but he is largely influenced by the declamatory school of his grandfather and uncle. Hence his partiality for finished antithesis, contrasting strongly with his generally breathless style and turbid diction. Quintilian sums up both aspects of his genius with pregnant brevity, "Ardens et concitatus et sententiis clarissimus," adding with equal justice, "Magis oratoribus quam poetis annumerandus." Lucan's oratory, however, frequently approaches the regions of poetry, *e.g.* the apotheosis of Pompey at the beginning of the ninth book, and the passage in the same book where Cato, in the truest spirit of the Stoic philosophy, refuses to consult the oracle of Jupiter Ammon. Though in many cases Lucan's rhetoric is frigid, hyperbolical, and out of keeping with the character of the speaker, yet his theme has a genuine hold upon him; in the age of Nero he celebrates the republic as a poet with the same energy with which in the age of Cicero he might have defended it as an orator. But for him it might almost have been said that the Roman republic never inspired the Roman muse.

Lucan never speaks of himself, but his epic speaks for him. He must have been endowed with no common ambition, industry and self-reliance, an enthusiastic though narrow and aristocratic patriotism, and a faculty for appreciating magnanimity in others. But the only personal trait positively known to us is his conjugal affection, a characteristic of Seneca also.

Lucan, together with Statius, was preferred even to Virgil in the middle ages. So late as 1493 his commentator Sulpitius writes: "Magnus profecto est Maro, magnus Lucanus; adeoque prope par, ut quis sit major possis ambigere." Shelley and Southey, in the first transport of admiration, thought Lucan superior to Virgil; Pope, with more judgment, says that the fire which burns in Virgil with an equable glow breaks forth in Lucan with sudden, brief and interrupted flashes. Of late, notwithstanding the enthusiasm of isolated admirers, Lucan has been unduly neglected, but he has exercised an important influence upon one great department of modern literature by his effect upon Corneille, and through him upon the classical French drama.

Authorities.—The *Pharsalia* was much read in the middle ages, and consequently it is preserved in a large number of manuscripts, the relations of which have not yet been thoroughly made out. The most recent critical text is that of C. Hosius (2nd ed. 1906), and the latest complete commentaries are those of C. E. Haskins (1887, with a valuable introduction by W. E. Heitland) and C. M. Francken (1896). There are separate editions of book i. by P. Lejay (1894) and book vii. by J. P. Postgate (1896). Of earlier editions those of Oudendorp (which contains the continuation of the *Pharsalia* to the death of Caesar by Thomas May, 1728), Burmann (1740), Bentley (1816, posthumous) and Weber (1829) may be mentioned. There are English translations by C. Marlowe (book i. only, 1600), Sir F. Gorges (1614), Thomas May (1626), N. Rowe (1718) and Sir E. Ridley (2nd ed. 1905), the two last being the best.

(R. G.; J. P. P.)

LUCANIA, in ancient geography, a district of southern Italy, extending from the Tyrrhenian Sea to the Gulf of Tarentum. To the north it adjoined Campania, Samnium and Apulia, and to the south it was separated by a narrow isthmus from the district of Bruttii. It thus comprised almost all the modern province of the Basilicata, with the greater part of the province of Salerno and a portion of that of Cosenza. The precise limits were the river Silarus on the north-west, which separated it from Campania, and the Bradanus, which flows into the Gulf of Tarentum, on the north-east; while the two little rivers Laus and Crathis, flowing from the ridge of the Apennines to the sea on the west and east, marked the limits of the district on the side of the Bruttii.

Almost the whole is occupied by the Apennines, here an irregular group of lofty masses. The main ridge approaches the western sea, and is continued from the lofty knot of mountains on the frontiers of Samnium, nearly due south to within a few miles of the Gulf of Policastro, and thenceforward is separated from the sea by only a narrow interval till it enters the district of the Bruttii. Just within the frontier of Lucania rises Monte Pollino, 7325 ft., the highest peak in the southern Apennines. The mountains descend by a much more gradual slope to the coastal plain of the Gulf of Tarentum. Thus the rivers which flow to the Tyrrhenian Sea are of little importance compared with those that descend towards the Gulf of Tarentum. Of these the most important are—the Bradanus (Bradano), the Casuentus (Basiento), the Aciris (Agri), and the Siris (Sinno). The Crathis, which forms at its mouth the southern limit of the province, belongs almost wholly to the territory of the Bruttii, but it receives a tributary, the Sybaris (Coscile), from the mountains of Lucania. The only considerable stream on the western side is the Silarus (Sele), which constitutes the northern boundary, and has two important tributaries in the Calor (Calore) and the Tanager (Negro) which joins it from the south.

The district of Lucania was so called from the people bearing the name Lucani (Lucanians) by whom it was conquered about the middle of the 5th century B.C. Before that period it was included under the general name of Oenotria, which was applied by the Greeks to the southernmost portion of Italy. The mountainous interior was occupied by the tribes known as Oenotrians and Chones, while the coasts on both sides were occupied by powerful Greek colonies which doubtless exercised a protectorate over the interior (see MAGNA GRAECIA). The Lucanians were a southern branch of the Samnite or Sabelline race, who spoke the Osca Lingua (*q.v.*). We know from Strabo that they had a democratic constitution save in time of war, when a dictator was chosen from among the regular magistrates. A few Oscan inscriptions survive, mostly in Greek characters, from the 4th or 3rd century B.C., and some coins with Oscan legends of the 3rd century (see Conway, Italic Dialects, p. 11 sqq.; Mommsen, *C.I.L.* x. p. 21; Roehl, *Inscriptiones Graecae Antiquissimae*, 547). The Lucanians gradually conquered the whole country (with the exception of the Greek towns on the coast) from the borders of Samnium and Campania to the southern extremity of Italy. Subsequently the inhabitants of the peninsula, now known as Calabria, broke into insurrection, and under the name of Bruttians established their independence, after which the Lucanians became confined within the limits already described. After this we find them engaged in hostilities with the Tarentines, and with Alexander, king of Epirus, who was called in by that people to their assistance, 326 B.C. In 298 B.C. (Livy x. 11 seq.) they made alliance with Rome, and Roman influence was extended by the colonies of Venusia (291 B.C.), Paestum (273), and above all Tarentum (272). Subsequently they were sometimes in alliance, but more frequently engaged in hostilities, during the Samnite wars. On the landing of Pyrrhus in Italy (281 B.C.) they were among the first to declare in his favour, and found themselves exposed to the resentment of Rome when the departure of Pyrrhus left his allies at the mercy of the Romans. After several campaigns they were reduced to subjection (272 B.C.). Notwithstanding this they espoused the cause of Hannibal during the Second Punic War (216 B.C.), and their territory during several campaigns was ravaged by both armies. The country never recovered from these disasters, and under the Roman government fell into decay, to which the Social War, in which the Lucanians took part with the Samnites against Rome (90-88 B.C.) gave the finishing stroke. In the time of Strabo the Greek cities on the coast had fallen into insignificance, and owing to the decrease of population and cultivation the malaria began to obtain the upper hand. The few towns of the interior were of no importance. A large part of the province was given up to pasture, and the mountains were covered with forests, which abounded in wild boars, bears and wolves. There were some fifteen independent communities, but none of great importance.

For administrative purposes under the Roman empire, Lucania was always united with the district of the Bruttii. The two together constituted the third region of Augustus.

The towns on the east coast were—Metapontum, a few miles south of the Bradanus; Heraclea, at the mouth of the Aciris; and Siris, on the river of the same name. Close to its southern frontier stood Sybaris, which was destroyed in 510 B.C., but subsequently replaced by Thurii. On the west coast stood Posidonia, known under the Roman government as Paestum; below that came Elea or Velia, Pyxus, called by the Romans Buxentum, and Laus, near the frontier of the province towards Bruttium. Of the towns of the interior the most considerable was Potentia, still called Potenza. To the north, near the frontier of Apulia, was Bantia (Aceruntia belonged more properly to Apulia); while due south from Potentia was Grumentum, and still farther in that direction were Nerulum and Muranum. In the upland valley of the Tanagrus were Atina, Forum Popilii and Consilinum; Eburi (Eboli) and Volceii (Buccino), though to the north of the Silarus, were also included in Lucania. The Via Popillia traversed the district from N. to S., entering it at the N.W. extremity; the Via Herculia, coming southwards from the Via Appia and passing through Potentia and Grumentum, joined the Via Popillia near the S.W. edge of the district: while another nameless road followed the east coast and other roads of less importance ran W. from Potentia to the Via Popillia, N.E. to the Via Appia and E. from Grumentum to the coast at Heraclea.

(T. As.)

LUCARIS, CYRILLUS (1572-1637), Greek prelate and theologian, was a native of Crete. In youth he travelled, studying at Venice and Padua, and at Geneva coming under the influence of the reformed faith as represented by Calvin. In 1602 he was elected patriarch of Alexandria, and in 1621 patriarch of Constantinople. He was the first great name in the Orthodox Eastern Church since 1453, and dominates its history in the 17th century. The great aim of his life was to reform the church on Calvinistic lines, and to this end he sent many young Greek theologians to the universities of Switzerland, Holland and England. In 1629 he published his famous *Confessio*, Calvinistic in doctrine, but as far as possible accommodated to the language and creeds of the Orthodox Church. It appeared the same year in two Latin editions, four French, one German and one English, and in the Eastern Church started a controversy which culminated in 1691 in the convocation by Dositheos, patriarch of Jerusalem, of a synod by which the Calvinistic doctrines were condemned. Lucaris was several times temporarily deposed and banished at the instigation of his orthodox opponents and of the Jesuits, who were his bitterest enemies. Finally, when Sultan Murad was about to set out for the Persian War, the patriarch was accused of a design to stir up the Cossacks, and to avoid trouble during his absence the sultan had him killed by the Janissaries (June 1637). His body was thrown into the sea, recovered and buried at a distance from the capital by his friends, and only brought back to Constantinople after many years.

The orthodoxy of Lucaris himself continued to be a matter of debate in the Eastern Church, even Dositheos, in view of the reputation of the great patriarch, thinking it expedient to gloss over his heterodoxy in the interests of the Church.

See the article “Lukaris” by Ph. Meyer in Herzog-Hauck, *Realencyklop.* (3rd ed., Leipzig, 1902), which gives further authorities.

LUCARNE, a French architectural term for a garret window, also for the lights or small windows in spires.

LUCAS, SIR CHARLES (d. 1648), English soldier, was the son of Sir Thomas Lucas of Colchester, Essex. As a young man he saw service in the Netherlands under the command of his brother, and in the "Bishops' War" he commanded a troop of horse in King Charles I.'s army. In 1639 he was made a knight. At the outbreak of the Civil War Lucas naturally took the king's side, and at the first cavalry fight, Powick Bridge, he was wounded. Early in 1643 he raised a regiment of horse, with which he defeated Middleton at Padbury on July 1st. In January 1644 he commanded the forces attacking Nottingham, and soon afterwards, on Prince Rupert's recommendation, he was made lieutenant-general of Newcastle's Northern army. When Newcastle was shut up in York, Lucas and the cavalry remained in the open country, and when Rupert's relieving army crossed the mountains into Yorkshire he was quickly joined by Newcastle's squadrons. At Marston Moor Lucas swept Fairfax's Yorkshire horse before him, but later in the day he was taken prisoner. Exchanged during the winter, he defended Berkeley Castle for a short time against Rainsborough, but was soon in the field again. As lieutenant-general of all the horse he accompanied Lord Astley in the last campaign of the first war, and, taken prisoner at Stow-on-the-Wold, he engaged not to bear arms against parliament in the future. This parole he must be held to have broken when he took a prominent part in the seizure of Colchester in 1648. That place was soon invested, and finally fell, after a desperate resistance, to Fairfax's army. The superior officers had to surrender "at mercy," and Lucas and Sir George Lisle were immediately tried by court martial and sentenced to death. The two Royalists were shot the same evening in the Castle of Colchester.

See Lloyd, *Memoirs of Excellent Personages* (1669); and Earl de Grey, *A Memoir of the Life of Sir Charles Lucas* (1845).

LUCAS, CHARLES (1713-1771), Irish physician and politician, was the son of a country gentleman of small means in Co. Clare. Charles opened a small business as an apothecary in Dublin, and between 1735 and 1741 he began his career as a pamphleteer by publishing papers on professional matters which led to legislation requiring inspection of drugs. Having been elected a member of the common council of Dublin in 1741 he detected and exposed encroachments by the aldermen on the electoral rights of the citizens, and entered upon a controversy on the subject, but failed in legal proceedings against the aldermen in 1744. With a view to becoming a parliamentary candidate for the city of Dublin he issued in 1748-1749 a series of political addresses in which he advocated the principles of Molyneux and Swift; and he made himself so obnoxious to the government that the House of Commons voted him an enemy to the country, and issued a proclamation for his arrest, thus compelling him to retire for some years to the continent. Having studied medicine at Paris, Lucas took the degree of M.D. at Leiden in 1752. In the following year he started practice as a physician in London, and in 1756 he published a work on medicinal waters, the properties of which he had studied on the continent and at Bath. The essay was reviewed by Dr Johnson, and although it was resented by the medical profession it gained a reputation and a considerable practice for its author. In 1760 he renewed his political pamphleteering; and having obtained a pardon from George III., he proceeded to Dublin, where he received a popular welcome and a Doctor's degree from Trinity College. He was elected member for the city of Dublin in 1761, his colleague in the representation being the recorder, Henry Grattan's father. On the appointment of Lord Halifax as lord lieutenant in the same year Lucas wrote him a long letter (19th of Sept. 1761, MSS. Irish State Paper Office) setting forth the grievances which Ireland had suffered in the past, chiefly on account of the exorbitant pensions enjoyed by government officials. The cause of these evils he declared to be the unrepresentative character of the Irish constitution; and among the remedies he proposed was the shortening of parliaments. Lucas brought in a bill in his first session to effect this reform, but was defeated on the motion to have the bill sent to England for approval by the privy council; and he insisted upon the independent rights of the Irish parliament, which were afterwards in fuller measure successfully vindicated by Grattan. He also defended the privileges of the Irish Protestants in the press, and especially in the *Freeman's Journal*, founded in 1763. His contributions to the press, and his *Addresses to the Lord Mayor* and other political pamphlets made him one of the most popular writers in Ireland of his time, although he was anti-catholic in his prejudices, and although, as Lecky observes, "there is nothing in his remains to show that he possessed any real superiority either of intellect or knowledge, or even any remarkable brilliancy of expression." He died on the 4th of November 1771, and was accorded a public funeral. As an orator Charles Lucas appears to have had little power, and he made no mark in the House of Commons.

See R. R. Madden, *Hist. of Irish Periodical Literature from the End of the 17th to the Middle of the 19th Century* (2 vols., London, 1867); Francis Hardy, *Memoirs of the Earl of Charlemont* (2 vols., London, 1812); W. E. H. Lecky, *History of Ireland in the Eighteenth Century*, vols. i. and ii. (5 vols., London, 1892).

LUCAS, JOHN SEYMOUR (1849-), English painter, was born in London, and was a student in the Royal Academy Schools. He was elected an associate of the academy in 1886 and academician in 1898, and became a constant exhibitor of pictures of historical and domestic incidents, notably of the Tudor and Stuart periods, painted with much skill and with close attention to detail. One of his most important works is a panel in the Royal Exchange, presented by the corporation of London, representing William the Conqueror granting the first charter to the city; and one of his earlier pictures, "After Culloden: Rebel Hunting," is in the National Gallery of British Art.

LUCAS VAN LEYDEN (*c.* 1494-1533), Dutch painter, was born at Leiden, where his father Huig Jacobsz gave him the first lessons in art. He then entered the painting-room of Cornelis Engelbrechtszen of Leiden, and soon became known for his capacity in making designs for glass, engraving copper-plates, painting pictures, portraits and landscapes in oil and distemper. According to van Mander he was born in 1494, and painted at the age of twelve a "Legend of St Hubert" for which

he was paid a dozen florins. He was only fourteen when he finished a plate representing Mahomet taking the life of Sergius, the monk, and at fifteen he produced a series of nine plates for a "Passion," a "Temptation of St Anthony," and a "Conversion of St Paul." The list of his engravings in 1510, when, according to van Mander, he was only sixteen, includes subjects as various as a celebrated "Ecce Homo," "Adam and Eve expelled from Paradise," a herdsman and a milkmaid with three cows, and a little naked girl running away from a barking dog. Whatever may be thought of the tradition embodied in van Mander's pages as to the true age of Lucas van Leyden, there is no doubt that, as early as 1508, he was a master of repute as a copperplate engraver. It was the time when art found patrons among the public that could ill afford to buy pictures, yet had enough interest in culture to satisfy itself by means of prints. Lucas van Leyden became the representative man for the public of Holland as Dürer for that of Germany; and a rivalry grew up between the two engravers, which came to be so close that on the neutral market of Italy the products of each were all but evenly quoted. Vasari affirmed that Dürer surpassed Lucas as a designer, but that in the use of the graver they were both unsurpassed, a judgment which has not been reversed. But the rivalry was friendly. About the time when Dürer visited the Netherlands Lucas went to Antwerp, which then flourished as an international mart for productions of the pencil and the graver, and it is thought that he was the master who took the freedom of the Antwerp gild in 1521 under the name of Lucas the Hollander. In Dürer's diary kept during his travels in the Low Countries, we find that at Antwerp he met Lucas, who asked him to dinner, and that Dürer accepted. He valued the art of Lucas at its true figure, and exchanged the Dutchman's prints for eight florins' worth of his own. In 1527 Lucas made a tour of the Netherlands, giving dinners to the painters of the gilds of Middleburg, Ghent, Malines and Antwerp. He was accompanied during the trip by Mabuse, whom he imitated in his style as well as in his love of rich costume. On his return home he fell sick and remained ailing till his death in 1533, and he believed that poison had been administered to him by some envious comrade.

A few days before his death Lucas van Leyden was informed of the birth of a grandson, first-born of his only daughter Gretchen. Gretchen's fourth son Jean de Hoey followed the profession of his grandfather, and became well known at the Parisian court as painter and chamberlain to the king of France, Henry IV.

> As an engraver Lucas van Leyden deserves his reputation. He has not the genius, nor had he the artistic tact, of Dürer; and he displays more cleverness of expression than skill in distribution or in refinement in details. But his power in handling the graver is great, and some of his portraits, especially his own, are equal to anything by the master of Nüremberg. Much that he accomplished as a painter has been lost, because he worked a good deal upon cloth in distemper. In 1522 he painted the "Virgin and Child with the Magdalen and a Kneeling Donor," now in the gallery of Munich. His manner was then akin to that of Mabuse. The "Last Judgment" in the town-gallery of Leiden is composed on the traditional lines of Cristus and Memling, with monsters in the style of Jerom Bosch and figures in the stilted attitudes of the South German school; the scale of colours in yellow, white and grey is at once pale and gaudy, the quaintest contrasts are produced by the juxtaposition of alabaster flesh in females and bronzed skin in males, or black hair by the side of yellow, or rose-coloured drapery set sharply against apple-green or black; yet some of the heads are painted with great delicacy and modelled with exquisite feeling. Dr Waagen gave a favourable opinion of a triptych now at the Hermitage at St Petersburg, executed, according to van Mander, in 1531, representing the "Blind Man of Jericho healed by Jesus Christ." Here too the German critic observed the union of faulty composition with great finish and warm flesh-tints with a gaudy scale of colours. The same defects and qualities will be found in such specimens as are preserved in public collections, among which may be mentioned the "Card Party" at Wilton House, the "Penitent St Jerome" in the gallery of Berlin, and the hermits "Paul" and "Anthony" in the Liechtenstein collection at Vienna. There is a characteristic "Adoration of the Magi" at Buckingham Palace.

LUCCA (anc. *Luca*), a town and archiepiscopal see of Tuscany, Italy, capital of the province of Lucca, 13 m. by rail N.E. of Pisa. Pop. (1901) 43,566 (town); 73,465 (commune). It is situated 62 ft. above the level of the sea, in the valley of the Serchio, and looks out for the most part on a horizon of hills and mountains. The fortifications, pierced by four gates, were begun in 1504 and completed in 1645, and long ranked among the most remarkable in the peninsula. They are still well-preserved and picturesque, with projecting bastions planted with trees.

The city has a well-built and substantial appearance, its chief attraction lying in the numerous churches, which belong in the main to a well-marked basilican type, and present almost too richly decorated exteriors, fine apsidal ends and quadrangular campaniles, in some cases with battlemented summits, and windows increasing in number as they ascend. In style they are an imitation of the Pisan. It is remarkable that in the arcades a pillar generally occupies the middle of the façade. The cathedral of St Martin was begun in 1063 by Bishop Anselm (later Pope Alexander II.); but the great apse with its tall columnar arcades and the fine campanile are probably the only remnants of the early edifice, the nave and transepts having been rebuilt in the Gothic style in the 14th century, while the west front was begun in 1204 by Guidetto (lately identified with Guido Bigarelli of Como), and "consists of a vast portico of three magnificent arches, and above them three ranges of open galleries covered with all the devices of an exuberant fancy." The ground plan is a Latin cross, the nave being 273 ft. in length and 84 ft. in width, and the transepts 144 ft. in length. In the nave is a little octagonal temple or chapel, which serves as a shrine for the most precious of the relics of Lucca, a cedar-wood crucifix, carved, according to the legend, by Nicodemus, and miraculously conveyed to Lucca in 782. The Sacred Countenance (*Volto Santo*), as it is generally called, because the face of the Saviour is considered a true likeness, is only shown thrice a year. The chapel was built in 1484 by Matteo Civitali, a local sculptor of the early Renaissance (1436-1501); he was the only master of Tuscany outside Florence who worked thoroughly in the Florentine style, and his creations are among the most charming works of the Renaissance. The cathedral contains several other works by him—the tomb of P. da Noceto, the altar of S. Regulus and the tomb of Ilaria del Carretto by Jacopo della Quercia of Siena (described by Ruskin in *Modern Painters*, ii.), the earliest of his extant works (1406), and one of the earliest decorative works of the Renaissance. In one of the chapels is a fine Madonna by Fra Bartolommeo; in the municipal picture gallery are a fine "God the Father" and another Madonna by him; also some sculptures by Civitali, and some good wood carving, including choir stalls. In the cathedral choir is good stained glass of 1485. The church of St Michael, founded in the 8th century, and built of marble within and without, has a lofty and magnificent western façade (1188)—an architectural screen rising much above the roof of the church. The interior is good but rather bare. The church of St Martino at Arliano near Lucca belongs to the first half of the 8th century; it is of basilican plan (see G. T. Rivoira, *Origini dell' Architettura Lombarda*, iii. [Rome, 1901] 138). St Frediano or Frigidian dates originally from the 7th century, but was built in the Romanesque style in 1112-1147, though the interior, originally with four aisles and nave, shows traces of the earliest structure; the front occupies the site of the ancient apse; in one of its chapels is the tomb of Santa Zita, patroness of servants and of Lucca itself. In S. Francesco, a fine Gothic church, is the tomb of Castruccio Castracane. San Giovanni (originally of the 12th century), S. Cristoforo, San Romano (rebuilt in the 17th century, by Vincenzo Buonamici), and Santa Maria Forisportam (of the 12th century) also deserve mention.

Among the secular buildings are the old ducal palace, begun in 1578 by Ammanati, and now the residence of the prefect and seat of the provincial officers and the public picture gallery; the early Renaissance Palazzo Pretorio, or former residence of the podestà, now the seat of the civil and correctional courts; the palace, erected in the 15th century by a member of the Guinigi family, of brick, in the Italian Gothic style, and now serving as a poor-house; the 16th-century palace of the marquis Guidiccioni, now used as a depository for the archives, the earliest documents going back to A.D. 790. The Palazzo Mansi

contains a collection of Dutch pictures. There are several other fine late 16th-century palaces. The principal market-place in the city (*Piazza del Mercato*) has taken possession of the arena of the ancient amphitheatre, the outer arches of which can still be seen in the surrounding buildings. The whole building, belonging probably to the early Empire, measured 135 by 105 yds., and the arena 87½ by 58 yds. The outline of the ancient theatre can be traced in the Piazza delle Grazie, and some of its substructure walls are preserved. The ancient forum was on the site of the Piazza S. Michele in the centre of the town; remains of a small public building or shrine were found not far off in 1906 (L. Pernier in *Notizie degli Scavi*, 1906, p. 117). The rectangular disposition of the streets in the centre of the town is a survival of Roman times. Besides the academy of sciences, which dates from 1584, there are several institutions of the same kind—a royal philomathic academy, a royal academy of arts and a public library of 50,000 volumes. The archiepiscopal library and archives are also important, while the treasury contains some fine goldsmith's work, including the 14th-century Croce dei Pisani, made by the Pisans for the cathedral.

The river Serchio affords water-power for numerous factories. The most important industries are the manufacture of jute goods (carried on at Ponte a Moriano in the Serchio valley, 6 m. N. of Lucca), tobacco, silks and cottons. The silk manufacture, introduced at Lucca about the close of the 11th century, and in the early part of the 16th the means of subsistence for 30,000 of its inhabitants, now gives employment (in reeling and throwing) to only about 1500. The bulk of the population is engaged in agriculture. The water supply is maintained by an aqueduct built in 1823-1832 with 459 arches, from the Pisan mountains.

The ancient Luca, commanding the valley of the Serchio, is first mentioned as the place to which Sempronius retired in 218 B.C. before Hannibal; but there is some doubt as to the correctness of Livy's statement, for, though there were continual wars with the Ligurians, after this time, it is not mentioned again until we are told that in 177 B.C. a Latin colony was founded there in territory offered by the Pisans for the purpose.[1] It must have become a municipium by the *lex Julia* of 90 B.C., and it was here that Julius Caesar in 56 B.C. held his famous conference with Pompey and Crassus, Luca then being still in Liguria, not in Etruria. A little later a colony was conducted hither by the triumvirs or by Octavian; whether after Philippi or after Actium is uncertain. In the Augustan division of Italy Luca was assigned to the 7th region (Etruria); it is little mentioned in the imperial period except as a meeting-point of roads—to Florentia (see Clodia, Via), Luna and Pisae. The road to Parma given in the itineraries, according to some authorities, led by Luna and the Cisa pass (the route taken by the modern railway from Sarzana to Parma), according to others up the Serchio valley and over the Sassalbo pass (O. Cuntz in *Jahreshefte des oesterr. arch. Instituts*, 1904, 53). Though plundered and deprived of part of its territory by Odoacer, Luca appears as an important city and fortress at the time of Narses, who besieged it for three months in A.D. 553, and under the Lombards it was the residence of a duke or marquis and had the privilege of a mint. The dukes gradually extended their power over all Tuscany, but after the death of the famous Matilda the city began to constitute itself an independent community, and in 1160 it obtained from Welf VI., duke of Bavaria and marquis of Tuscany, the lordship of all the country for 5 m. round, on payment of an annual tribute. Internal discord afforded an opportunity to Uguccione della Faggiuola, with whom Dante spent some time there, to make himself master of Lucca in 1314, but the Lucchesi expelled him two years afterwards, and handed over their city to Castruccio Castracane, under whose masterly tyranny it became "for a moment the leading state of Italy," until his death in 1328 (his tomb is in S. Francesco). Occupied by the troops of Louis of Bavaria, sold to a rich Genoese Gherardino Spinola, seized by John, king of Bohemia, pawned to the Rossi of Parma, by them ceded to Martino della Scala of Verona, sold to the Florentines, surrendered to the Pisans, nominally liberated by the emperor Charles IV. and governed by his vicar, Lucca managed, at first as a democracy, and after 1628 as an oligarchy, to maintain "its independence alongside of Venice and Genoa, and painted the word Libertas on its banner till the French Revolution." In the beginning of the 16th century one of its leading citizens, Francesco Burlamacchi, made a noble attempt to give political cohesion to Italy, but perished on the scaffold (1548); his statue by Ulisse Cambi was erected on the Piazza San Michele in 1863. As a principality formed in 1805 by Napoleon in favour of his sister Elisa and her husband Bacchiocchi, Lucca was for a few years wonderfully prosperous. It was occupied by the Neapolitans in 1814; from 1816 to 1847 it was governed as a duchy by Maria Luisa, queen of Etruria, and her son Charles Louis; and it afterwards formed one of the divisions of Tuscany.

The bishops of Lucca, who can be traced back to 347, received exceptional marks of distinction, such as the pallium in 1120, and the archiepiscopal cross from Alexander II. In 1726 Benedict XIII. raised their see to the rank of an archbishopric, without suffragans.

See A. Mazzarosa, *Storia di Lucca* (Lucca, 1833); E. Ridolfi, *L'Arte in Lucca studiata nella sua Cattedrale* (1882); *Guidi di Lucca; La Basilica di S. Michele in Foro in Lucca*.

(T. As.)

1 Some confusion has arisen owing to the similarity of the names Luca and Luna; the theory of E. Bormann in *Corp. Inscrip. Latin.* (Berlin, 1888), xi. 295 is here followed.

LUCCA, BAGNI DI (Baths of Lucca, formerly *Bagno a Corsena*), a commune of Tuscany, Italy, in the province of Lucca, containing a number of famous watering-places. Pop. (1901) 13,685. The springs are situated in the valley of the Lima, a tributary of the Serchio; and the district is known in the early history of Lucca as the Vicaria di Val di Lima. Ponte Serraglio (16 m. N. of Lucca by rail) is the principal village (pop. 1312), but there are warm springs and baths also at Villa, Docce Bassi, Bagno Caldo, &c. The springs do not seem to have been known to the Romans. Bagno a Corsena is first mentioned in 1284 by Guidone de Corvaia, a Pisan historian (Muratori, *R.I.S.* vol. xxii.). Fallopius, who gave them credit for the cure of his own deafness, sounded their praises in 1569; and they have been more or less in fashion since. The temperature of the water varies from 98° to 130° Fahr.; in all cases it gives off carbonic acid gas and contains lime, magnesium and sodium products. In the village of Bagno Caldo there is a hospital constructed largely at the expense of Nicholas Demidoff in 1826. In the valley of the Serchio, 3 m. below Ponte a Serraglio, is the medieval Ponte del Diavolo (1322) with its lofty central arch.

LUCCEIUS, LUCIUS, Roman orator and historian, friend and correspondent of Cicero. A man of considerable wealth and literary tastes, he may be compared with Atticus. Disgusted at his failure to become consul in 60, he retired from public life, and devoted himself to writing a history of the Social and Civil Wars. This was nearly completed, when Cicero earnestly requested him to write a separate history of his (Cicero's) consulship. Cicero had already sung his own praises in both Greek and Latin, but thought that a panegyric by Lucceius, who had taken considerable interest in the affairs of that critical period, would have greater weight. Cicero offered to supply the material, and hinted that Lucceius need not sacrifice

laudation to accuracy. Lucceius almost promised, but did not perform. Nothing remains of any such work or of his history. In the civil war he took the side of Pompey; but, having been pardoned by Caesar, returned to Rome, where he lived in retirement until his death.

Cicero's *Letters* (ed. Tyrrell and Purser), especially *Ad Fam.* v. 12; and Orelli, *Onomasticon Tullianum*.

LUCCHESINI, GIROLAMO (1751-1825), Prussian diplomatist, was born at Lucca on the 7th of May 1751, the eldest son of Marquis Lucchesini. In 1779 he went to Berlin where Frederick the Great gave him a court appointment, making use of him in his literary relations with Italy. Frederick William II., who recognized his gifts for diplomacy, sent him in 1787 to Rome to obtain the papal sanction for the appointment of a coadjutor to the bishop of Mainz, with a view to strengthening the German Fürstenbund. In 1788 he was sent to Warsaw, and brought about a rapprochement with Prussia and a diminution of Russian influence at Warsaw. He was accredited ambassador to the king and republic of Poland on the 12th of April 1789. Frederick William was at that time intriguing with Turkey, then at war with Austria and Russia. Lucchesini was to rouse Polish feeling against Russia, and to secure for Prussia the concourse of Poland in the event of war with Austria and Russia. All his power of intrigue was needed in the conduct of these hazardous negotiations, rendered more difficult by the fact that Prussian policy excluded the existence of a strong Polish government. A Prusso-Polish alliance was concluded in March 1790. Lucchesini had been sent in January of that year to secure the alliance of Saxony against Austria, and in September he was sent to Sistova, where representatives of the chief European powers were engaged in settling the terms of peace between Austria and Turkey, which were finally agreed upon on the 4th of August 1791. Before he returned to Warsaw the Polish treaty of which he had been the chief author had become a dead letter owing to the engagements made between Prussia and Austria at Reichenbach in July 1790, and Prussia was already contemplating the second partition of Poland. He was recalled at the end of 1791, and in July 1792 he joined Frederick William in the invasion of France. He was to be Prussian ambassador in Paris when the allied forces should have reinstated the authority of Louis XVI. He was opposed alike to the invasion of France and the Austrian alliance, but his prepossessions did not interfere with his skilful conduct of the negotiations with Kellermann after the allies had been forced to retire by Dumouriez's guns at Valmy, nor with his success in securing the landgrave of Hesse-Darmstadt's assistance against France. In 1793 he was appointed ambassador to Vienna, with the ostensible object of securing financial assistance for the Rhenish campaign. He accompanied Frederick William through the Polish campaign of 1793-94, and in the autumn returned to Vienna. His anti-Austrian bias made him extremely unpopular with the Austrian court, which asked in vain for his recall in 1795. In 1797, after a visit to Italy in which he had an interview with Napoleon at Bologna, these demands were renewed and acceded to. In 1800 he was sent by Frederick William III. on a special mission to Paris. Despatches in which he expressed his distrust of Bonaparte's peaceful professions and his conviction of the danger of the continuance of a neutral policy were intercepted by the first consul, who sought his recall, but eventually accepted him as regular ambassador (1802). He consistently sought friendly relations between France and Prussia, but he warned his government in 1806 of Napoleon's intention of restoring Hanover to George III. and of Murat's aggressions in Westphalia. He was superseded as ambassador in Paris in September just before the outbreak of war. After the disaster of Jena on the 14th of October he had an interview with Duroc near Wittenberg to seek terms of peace. After two unsuccessful attempts at negotiation, the first draft being refused by Napoleon, the second by Frederick William, he joined the Prussian court at Königsberg only to learn that his services were no longer required. He then joined the court of Elisa, grand duchess of Tuscany, at Lucca and Florence, and after Napoleon's fall devoted himself to writing. He died on the 20th of October 1825.

He published in 1819 three volumes, *Sulle cause et gli effetti della confederazione rhenana*, at Florence, but revealed little that was not already available in printed sources. His memoirs remained in MS. His despatches are edited by Bailleu in *Preussen und Frankreich* (Leipzig, 1887, *Publikationen aus den preussischen Staatsarchiven*).

LUCENA, a town of southern Spain, in the province of Cordova, 37 m. S.S.E. of Cordova, on the Madrid-Algeciras railway. Pop. (1900) 21,179. Lucena is situated on the Cascajar, a minor tributary of the Genil. The parish church dates from the beginning of the 16th century. The chief industries are the manufacture of matches, brandy, bronze lamps and pottery, especially the large earthenware jars (*tinajas*) used throughout Spain for the storage of oil and wine, some of which hold more than 300 gallons. There is considerable trade in agricultural produce, and the horse fair is famous throughout Andalusia. Lucena was taken from the Moors early in the 14th century; it was in the attempt to recapture it that King Boabdil of Granada was taken prisoner in 1483.

LUCERA, a town and episcopal see of Apulia, Italy, 12½ m. W.N.W. by rail of Foggia. Pop. (1901) 16,962. It is situated upon a lofty plateau, the highest point of which (823 ft.), projecting to the W., was the ancient citadel, and is occupied by the well-preserved castle erected by Frederick II., and rebuilt by Pierre d'Angicourt about 1280. The cathedral, originally Romanesque, but restored after 1300 is in the Gothic style; the façade is good, and so is the ciborium. The interior was restored in 1882. The town occupies the site of the ancient Luceria, the key of the whole country. According to tradition the temple of Minerva, founded by Diomede, contained the Trojan Palladium, and the town struck numerous bronze coins; but in history it is first heard of as on the Roman side in the Samnite Wars (321 B.C.), and in 315 or 314 B.C. a Latin colony was sent here. It is mentioned in subsequent military history, and its position on the road from Beneventum, via Aecae (mod. *Troja*) to Sipontum, gave it some importance. Its wool was also renowned. It now contains no ancient remains above ground, though several mosaic pavements have been found and there are traces of the foundations of an amphitheatre outside the town on the E. The town-hall contains a statue of Venus, a mosaic and some inscriptions (but cf. Th. Mommsen's remarks on the local neglect of antiquities in *Corp. Inscr. Lat.* ix. 75). In 663 it was destroyed by Constans II., and was only restored in 1223 by Frederick II., who transported 20,000 Saracens hither from Sicily. They were at first allowed religious freedom, but became Christians under compulsion in 1300. Up to 1806 Lucera was the capital of the provinces of Basilicata and Molise.

(T. As.)

LUCERNE (Ger. *Luzern*; Ital. *Lucerna*), one of the cantons of central Switzerland. Its total area is 579.3 sq. m., of which 530.2 sq. m. are classed as "productive" (forests covering 120.4 sq. m., and vineyards .04 sq. m.). It contains no glaciers or eternal snows, its highest points being the Brienzer Rothhorn (7714 ft.) and Pilatus (6995 ft.), while the Rothstock summit (5453 ft.) and the Kaltbad inn, both on the Rigi, are included in the canton, the loftiest point of the Rigi range (the Kulm) being entirely in Schwyz. The shape of the canton is an irregular quadrilateral, due to the gradual acquisition of rural districts by the town, which is its historical centre. The northern portion, about 15½ sq. m., of the Lake of Lucerne is in the canton. Its chief river is the Reuss, which flows through it for a short distance only receiving the Kleine Emme that flows down through the Entlebuch. In the northern part the Wigger, the Suhr and the Wynen streams flow through shallow valleys, separated by low hills. The canton is fairly well supplied with railways. The lakes of Sempach and Baldegg are wholly within the canton, which also takes in small portions of those of Hallwil and of Zug.

In 1900 the population numbered 146,519, of which 143,337 were German-speaking, 2204 Italian-speaking and 747 French-speaking, while 134,020 were Romanists, 12,085 Protestants and 319 Jews. Its capital is Lucerne (*q.v.*); the other towns are Kriens (pop. 5951), Willisau (4131), Ruswil (3928), Littau (3699), Emmen (3162) and Escholzmatt (3127). The peasants are a fine race, and outside the chief centres for foreign visitors have retained much of their primitive simplicity of manners and many local costumes. In the Entlebuch particularly the men are of a robust type, and are much devoted to wrestling and other athletic exercises. That district is mainly pastoral and is famous for its butter and cheese. Elsewhere in the canton the pastoral industry (including swine-breeding) is more extended than agriculture, while chiefly in and around Lucerne there are a number of industrial establishments. The *industrie des étrangers* is greatly developed in places frequented by foreign visitors. The population as a whole is Conservative in politics and devotedly Romanist in religion. But owing to the settlement of many non-Lucerne hotel-keepers and their servants in the town of Lucerne the capital is politically Radical.

The canton ranks officially third in the Swiss confederation next after Zürich and Bern. It was formerly in the diocese of Constance, and is now in that of Basel. It contains 5 administrative districts and 107 communes. The existing cantonal constitution dates in its main features from 1875. The legislature or *Grossrath* consists of members elected in 55 electoral circles, in the proportion of 1 to every 1000 souls (or fraction over 500) of the Swiss population, and lasts for 4 years. On the 4th of April 1909 proportional representation was adopted for elections of members of the *Grossrath*. Since 1905 the executive of 7 members is elected by a popular vote for 4 years, as are the 2 members of the federal *Ständerath* and the 7 members of the federal *Nationalrath*. Five thousand citizens can demand a facultative referendum as to all legislative projects and important financial decrees, or as to the revision of the cantonal constitution, while the same number can also revoke the mandate of the cantonal legislature before its proper term of office has ended, though this revocation does not affect the executive. Four thousand citizens have the right of "initiative" as to constitutional amendments or legislative projects.

The canton is composed of the various districts which the town acquired, the dates being those at which the particular region was finally secured—Weggis (1380), Rothenburg, Kriens, Horw, Sempach and Hochdorf (all in 1394), Wolhusen and the Entlebuch (1405), the so-called "Habsburger region" to the N.E. of the town of Lucerne (1406), Willisau (1407), Sursee and Beromünster (1415), Malters (1477) and Littau (1481), while in 1803, in exchange for Hitzkirch, Merenschwand (held since 1397) was given up.

(W. A. B. C.)

LUCERNE, the capital of the Swiss canton of the same name. It is one of the principal tourist centres of Switzerland, being situated on the St Gotthard railway line, by which it is 59 m. from Basel and 180 m. from Milan. Its prosperity has always been bound up with the St Gotthard Pass, so that the successive improvements effected on that route (mule path in the 13th century, carriage road 1820-1830, and railway tunnel in 1882) have had much effect on its growth. It is beautifully situated on the banks of the river Reuss, just as it issues from the Lake of Lucerne, while to the south-west rises the rugged range of Pilatus, balanced on the east by the more smiling ridge of the Rigi and the calm waters of the lake. The town itself is very picturesque. On the rising ground to its north still stand nine of the towers that defended the old town wall on the Musegg slope. The Reuss is still crossed by two quaint old wooden bridges, the upper being the Kapellbrücke (adorned by many paintings illustrating the history of Switzerland and the town and clinging to the massive Wasserthurm) and the lower the Mühlenbrücke (also with paintings, this time of the Dance of Death). The old Hofbrücke (on the site of the Schweizerhof quay) was removed in 1852, when the process of embanking the shore of the lake began, the result being a splendid series of quays, along which rise palatial hotels. The principal building is the twin-towered Hofkirche (dedicated to St Leger or Leodegar) which, though in its present form it dates only from 1633-1635, was the centre round which the town gradually gathered; originally it formed part of a Benedictine monastery, but since 1455 has been held by a college of secular canons. It has a fine 17th-century organ. The 16th-century town-hall (Rathhaus) now houses the cantonal museum of antiquities of all dates. Both the cantonal and the town libraries are rich in old books, the latter being now specially devoted to works (MS. or printed) relating to Swiss history before 1848. The Lion monument, designed by Thorwaldsen, dedicated in 1821, and consisting of a dying lion hewn out of the living sandstone, commemorates the officers and men of the Swiss Guard (26 officers and about 760 men) who were slain while defending the Tuileries in Paris in 1792, and is reflected in a clear pool at its foot. In the immediate neighbourhood is the Glacier Garden, a series of potholes worn in the sandstone rock bed of an ancient glacier. Among modern buildings are the railway station, the post office and the Museum of War and Peace, all in the new quarter on the left bank of the Reuss. In the interior of the town are many quaint old private houses. In 1799 the population numbered but 4337, but had doubled by 1840. Since then the rise has been rapid and continuous, being 29,255 in 1900. The vast majority are German-speaking (in 1900 there were 1242 Italian-speaking and 529 French-speaking persons) and Romanists (in 1900 there were 4933 Protestants and 299 Jews).

The nucleus of the town was a Benedictine monastery, founded about 750 on the right bank of the Reuss by the abbey of Murbach in Alsace, of which it long remained a "cell." It is first mentioned in a charter of 840 under the name of "Luciaria," which is probably derived from that of the patron saint of the monastery, St Leger or Leodegar (in O. Ger. *Leudegar* or *Lutgar*)—the form "Lucerrun" is first found in 1252. Under the shadow of this monastery there grew up a small village. The germs of a municipal constitution appear in 1252, while the growing power of the Habsburgs in the neighbourhood weakened the ties that bound Lucerne to Murbach. In 1291 the Habsburgs finally purchased Lucerne from Murbach, an act that led a few weeks later to the foundation of the Swiss Confederation, of which Lucerne became the fourth member (the first town to be included) in 1332. But it did not get rid of all traces of Habsburg domination till after the glorious victory of Sempach (1386). That victory led also to the gradual acquisition of territory ruled by and from the town. At the time of the Reformation Lucerne clave to the old faith, of which ever since it has been the great stronghold in Switzerland. The papal nuncio resided

here from 1601 to 1873. In the 16th century, as elsewhere in Switzerland, the town government fell into the hands of an aristocratic oligarchy, whose power, though shaken by the great peasant revolt (1653) in the Entlebuch, lasted till 1798. Under the Helvetic republic (1798-1803) Lucerne was the seat of the central government, under the Act of Mediation (1803-1814) one of the six "Directorial" cantons and from 1815 to 1848 one of the three ruling cantons. The patrician government was swept away by the cantonal constitution of 1831. But in 1841 the Conservatives regained power, called in the Jesuits (1844) and so brought about the Sonderbund War (1847) in which they were defeated, the decisive battle taking place at Gisikon, not far from Lucerne. Since 1848 Lucerne has been in disfavour with the Radicals who control the federal government, and has not been chosen as the site of any great federal institution. The Radicals lost power in the canton in 1871, after which date the Conservatives became predominant in the canton, though in the town the Radicals were in the majority.

See J. J. Blumer, *Staats- und Rechtsgeschichte d. Schweiz. Demokratien* (3 vols., St Gall, 1850-1859); A. L. Gassmann, *Das Volkslied im Luzerner Wiggerthal u. Hinterland* (Basel, 1906); *Geschichtsfreund* (organ of the Historical Society of the Forest Cantons) from 1843. A. von Liebenau, *Charakterbilder aus Luzern's Vergangenheit* (2 vols., Lucerne, 1884-1891); T. von Liebenau, *Das alte Luzern* (Lucerne, 1881) and "Der luzernische Bauernkrieg vom 1653" (3 articles in vols. xviii.-xx., 1893-1895, of the *Jahrbuch f. Schweizerische Geschichte*); *Heimathkunde für den Kanton Luzern* (6 vols., Lucerne, 1867-1883); A. Lütolf, *Sagen, Bräuche, Legenden aus d. Fünf Orten* (Lucerne, 1862); K. Pfyffer, *Der Kanton Luzern* (2 vols., 1858-1859) and *Geschichte d. Stadt u. Kanton Luzern* (2 vols., new ed., 1861); A. P. von Segesser, *Rechtsgeschichte d. Stadt u. Republik Luzern* (4 vols., 1850-1858) and *45 Jahre (1841-1887) im Luzernischen Staatsdienst* (Bern, 1887); J. Sowerby, *The Forest Cantons of Switzerland* (London, 1892).

(W. A. B. C.)

LUCERNE, LAKE OF, the name usually given by foreigners to the principal lake of Central Switzerland. In French it is called the *Lac des Quatre Cantons*, and in German the *Vierwaldstättersee*, this term being often wrongly translated "Lake of the Four Forest Cantons," whereas it means the "Lake of the Four Valleys"—*valles*—which form the four Cantons of Lucerne, Unterwalden, Uri and Schwyz. It takes its name from the town of Lucerne, which is situated at its west end, just where the Reuss issues from the lake, after having entered it at Flüelen at the east end and so practically formed it; the Muota enters the lake at Brunnen (northern shore) and the two mountain streams called the Engelberg and the Sarnen Aa at Buochs and Alpnachstad respectively (S.). The lake is generally supposed to be, on the whole, the most beautiful in Switzerland. This is partly due to the steep limestone mountains between which it lies, the best known being the Rigi (5906 ft.) to the N., and Pilatus (6995 ft.) to the S.W., and to the great promontories that thrust themselves into its waters, such as those of Horw (S.), of Bürgenstock (S.), of Meggenhorn (N.) and of Seelisberg (S.), and partly to the irregularity of its shape. It is, in fact, composed of four main basins (with two side basins), which represent four different valleys, orographically distinct, and connected only by narrow and tortuous channels. There is, first, the most easterly basin, the *Bay of Uri*, extending from Flüelen on the south to Brunnen on the north. At Brunnen the great delta of the Muota forces the lake to the west, so that it forms the *Bay of Gersau* or the *Gulf of Buochs*, extending from the promontory of Seelisberg (E.) to that of the Bürgenstock (W.). Another narrow strait between the two "Noses" (*Nasen*) leads westwards to the *Basin of Weggis*, enclosed between the Rigi (N.) and the Bürgenstock promontory (S.). This last named bay forms the eastern arm of what is called the Cross of Lucerne, the western arm of which is formed by the Bay of Lucerne, while the northern arm is the Bay of Küssnacht and the southern that of *Hergiswil*, prolonged S.W. by the *Bay of Alpnach*, with which it is joined by a very narrow channel, spanned by the Acher iron bridge. The Bay of Uri offers the sternest scenery, but is the most interesting, by reason of its connexion with early Swiss history—at Brunnen the Everlasting League of 1315 was really made, while the legendary place of meeting of the founders of Swiss freedom was the meadow of the Rütli on the west (purchased by the Confederation in 1859), and the site of Tell's leap is marked by the Chapel of Tell (E.). Nearly opposite Brunnen, close to the west shore, an isolated rock (the *Schillerstein* or *Mythenstein*) now bears an inscription in honour of Friedrich Schiller, the author of the famous play of *William Tell* (1804). In the Bay of Gersau the most interesting spot is the village of Gersau (N.), which formed an independent republic from 1390 to 1798, but in 1818 was finally united to the canton of Schwyz. In the next basin to the west is Weggis (N.), also for long in the middle ages a small independent state; to the S.E. of Weggis, on the north shore of the lake, is Vitznau, whence a rack railway (1871) leads up to the top of the Rigi (4¼ m.), while S.W. of Weggis, on the south shore of the lake, is Kehrsiten, whence an electric railway leads up to the great hotels on the Bürgenstock promontory (2854 ft.). The town of Lucerne is connected with Flüelen by the main line of the St Gotthard railway (32 m.), though only portions of this line (from Lucerne to Küssnacht, 10½ m., and from Brunnen to Flüelen, 7 m.) run along the shore; Brunnen is also connected with Flüelen by the splendid carriage road known as the Axenstrasse (7¼ m.) and is the starting-point of an electric line (1905) up to Morschach (S.E.) and the great hotels of Axenstein and Axenfels near it. On the promontory between Lucerne and Küssnacht stands the castle of New Habsburg (modern), while from Küssnacht a carriage road leads through the remains of the "Hollow Way" (*Hohle Gasse*), the scene of the legendary murder of Gessler by William Tell. The west shore of the southern arm, or the basin of Hergiswil and the Bay of Alpnach, is traversed from Horw to Alpnachstad by the Brünig railway (5½ m.), which continues towards Sarnen (Obwalden) and the Bernese Oberland, S.W. from Alpnachstad, whence a rack railway leads N.W. up Pilatus (2¾ m.). Opposite Hergiswil, but on the east shore of the Basin of Hergiswil, is Stanstad, the port of Stans (Nidwalden), which is connected by an electric line with Engelberg (14 m.). The first steamer was placed on the lake in 1835. Lucerne is the only town of importance, but several spots serve as ports for neighbouring towns or large villages (Brunnen for Schwyz, Flüelen for Altdorf, Stanstad for Stans, Alpnachstad for Sarnen). Most of the villages on the shores are frequented in summer by visitors (Gersau also in winter), especially Hertenstein, Weggis, Gersau, Brunnen, Beckenried and Hergiswil, while great hotels, commanding magnificent views, have been built on heights above it, such as the Bürgenstock, Seelisberg, and near Morschach, above Brunnen, besides those on the Rigi, Pilatus and the Stanserhorn. The area of the lake is about 44½ sq. m., its length about 24 m., its greatest width only 2 m. and its greatest depth 702 ft., while the surface of the water is 1434 ft. above sea-level. Of the total area about 15½ sq. m. are in the Canton of Lucerne, 13 sq. m. in that of Nidwalden, 7½ sq. m. in that of Uri, 7½ sq. m. in that of Schwyz, and about 1 sq. m. in that of Obwalden.

(W. A. B. C.)

LUCERNE, Purple Medick or Alfalfa, known botanically as *Medicago sativa*, a plant of the natural order Leguminosae. In England it is still commonly called "lucerne," but in America "alfalfa," an Arabic term ("the best fodder"), which, owing to its increasing cultivation in the western hemisphere, has come into widening usage since the introduction of the plant by the Spaniards. It is an erect perennial herb with a branched hollow stem 1 to 2 ft. high, trifoliolate leaves, short dense racemes of small yellow, blue or

purple flowers, and downy pods coiled two or three times in a loose spiral. It has a characteristic long tap-root, often extending 15 ft. or more into the soil. It is a native of the eastern Mediterranean region, but was introduced into Italy in the 1st century A.D., and has become more widely naturalized in Europe; it occurs wild in hedges and fields in Britain, where it was first cultivated about 1650. It seems to have been taken from Spain to Mexico and South America in the 16th century, but the extension of its cultivation in the Western States of the American Union practically dates from the middle of the 19th century, and in Argentina its development as a staple crop is more recent. It is much cultivated as a forage crop in France and other parts of the continent of Europe, but has not come into such general use in Britain, where, however, it is frequently met with in small patches in districts where the soil is very light, with a dry subsoil. Its thick tap-roots penetrate very deeply into the soil; and, if a good cover is once obtained, the plants will yield abundant cuttings of herbage for eight or ten years, provided they are properly top-dressed and kept free from perennial weeds. The time to cut it is, as with clover and sainfoin, when it is in early flower.

In the United States alfalfa has become the staple leguminous forage crop throughout the western half of the country. Some idea of the increase in its cultivation may be obtained from the figures for Kansas, where in 1891 alfalfa was cultivated over 34,384 acres, while in 1907 the number was 743,050. The progress of irrigation has been an important factor in many districts. The plant requires a well-drained soil (deep and permeable as possible), rich in lime and reasonably free from weeds.

See, for practical directions as to cultivation, *Farmers' Bulletin* 339 of the U.S. Department of Agriculture, by J. M. Westgate (Washington, December 1908).

Lucerne (*Medicago sativa*), ½ nat. size.

1, Flower, enlarged.
2, Half-ripe fruit, ¾ nat. size.
3, Fruit, enlarged.

LUCHAIRE, DENIS JEAN ACHILLE (1846-1908), French historian, was born in Paris on the 24th of October 1846. In 1879 he became a professor at Bordeaux and in 1889 professor of medieval history at the Sorbonne; in 1895 he became a member of the *Académie des sciences morales et politiques*, where he obtained the Jean Reynaud prize just before his death on the 14th of November 1908. The most important of Achille Luchaire's earlier works is his *Histoire des institutions monarchiques de la France sous les premiers Capétiens* (1883 and again 1891); he also wrote a *Manuel des institutions françaises: période des Capétiens directs* (1892); *Louis VI. le Gros, annales de sa vie et de son règne* (1890); and *Étude sur les actes de Louis VII.* (1885). His later writings deal mainly with the history of the papacy, and took the form of an elaborate work on Pope Innocent III. This is divided into six parts: (1.) *Rome et Italie* (1904); (ii.) *La Croisade des Albigeois* (1905); (iii.) *La Papauté et l'empire* (1905); (iv.) *La Question d'Orient* (1906); (v.) *Les Royautés vassales du Saint-Siège* (1908); and (vi.) *Le Concile de Latran et la réforme de l'Église* (1908). He wrote two of the earlier volumes of E. Lavisse's *Histoire de France*.

LUCHU ARCHIPELAGO (called also RIUKIU, LOO-CHOO and LIUKIU), a long chain of islands belonging to Japan, stretching from a point 80 m. S. of Kiushiu to a point 73 m. from the N.E. coast of Formosa, and lying between 24° and 30° N. and 123° and 130° E. Japanese cartographers reckon the Luchu islands as 55, having a total coast-line of 768 m., an area of 935 sq. m., and a population of about 455,000. They divide them into three main groups, of which the northern is called Oshima-shoto; the central, Okinawa-gunto; and the southern, Sakishima-retto. The terms *shoto*, *gunto* and *retto* signify "archipelago," "cluster of islands" and "string of islands" respectively. The last-named group is subdivided into Miyako-gunto and Yayeyama-gunto. The principal islands of these various groups are:—

Oshima-shoto—				
Amami-Oshima	34	m. long and	17	m. broad
Tokuno-shima	16	”	8½	”
Okinawa-gunto—				
Okinawa-shima (Great Luchu)	63½	m. long and	14½	m. broad
Kume-shima	9¾	”	7½	”
Okinoerabu-shima	9½	”	5	”
Ihiya-shima	5	”	2½	”
Miyako-gunto—				
Miyako-shima	12¼	m. long and	12	m. broad
Erabu-shima	4¾	”	3½	”
Yayeyama-gunto—				
Ishigaki-shima	24½	m. long and	14½	m. broad
Iriomoto-shima	14½	”	14	”
Yonakuni-shima	7⅓	“	3½	“

The remaining islands of the archipelago are of very small size, although often thickly populated. Almost at the extreme north of the chain are two islands with active volcanoes: Nakano-shima (3485 ft.) and Suwanose-shima (2697 ft.), but the remaining members of the group give no volcanic indications, and the only other mountain of any size is Yuwan-dake (2299 ft.) in Amami-Oshima. The islands "are composed chiefly of Palaeozoic rocks—limestones and quartzites found in the west, and clay, slate, sandstone and pyroxenite or amphibolite on the east.... Pre-Tertiary rocks have been erupted through these. The outer sedimentary zone is of Tertiary rocks."[1] The capital is Shuri in Okinawa, an old-fashioned place with a picturesque castle. The more modern town of Nafa, on the same island, possesses the principal harbour and has considerable trade.

The scenery of Luchu is unlike that of Japan. Though so close to the tropics, the islands cannot be said to present tropical features: the bamboo is rare; there is no high grass or tangled undergrowth; open plains are numerous; the trees are not crowded together; lakes are wanting; the rivers are insignificant; and an unusual aspect is imparted to the scenery by numerous coral crags. The temperature in Nafa ranges from a mean of 82° F. in July to 60° in January. The climate is generally (though not in all the islands) pleasant and healthy, in spite of much moisture, the rainfall being very heavy.

The fauna includes wild boars and deer, rats and bats. Excellent small ponies are kept, together with cattle, pigs and goats. The majority of the islands are infested with venomous snakes called *habu* (*Trimeresurus*), which attain a length of 6 to 7 ft. and a diameter of from 2½ to 3 in. Their bite generally causes speedy death, and in the island of Amami-Oshima they claim many victims every year. The most important cultivated plant is the sugar-cane, which provides the principal staple of trade.

Luchu is noted for the production of particularly durable vermilion-coloured lacquer, which is much esteemed for table utensils in Japan. The islands also manufacture certain fabrics which are considered a speciality. These are *Riukiu-tsumugi*, a kind of fine pongee; the so-called *Satsuma-gasuri*, a cotton fabric greatly used for summer wear; *basho-fu*, or banana-cloth (called also *aka-basho*), which is woven from the fibre of a species of banana; and *hoso-jofu*, a particularly fine hempen stuff, made in Miyako-shima, and demanding such difficult processes that six months are required to weave and dye a piece 9½ yds. long.

People.—Although the upper classes in Luchu and Japan closely resemble each other, there are palpable differences between the lower classes, the Luchuans being shorter and better proportioned than the Japanese; having higher foreheads, eyes not so deeply set, faces less flattened, arched and thick eyebrows, better noses, less marked cheek-bones and much greater hairiness. The last characteristic has been attributed to the presence of Ainu blood, and has suggested a theory that when the Japanese race entered south-western Japan from Korea, they drove the Ainu northwards and southwards, one portion of the latter finding their way to Luchu, the other to Yezo. Women of the upper class never appear in public in Luchu, and are not even alluded to in conversation, but women of the lower orders go about freely with uncovered faces. The Luchu costume resembles that of Japan, the only marked difference being that the men use two hairpins, made of gold, silver, pewter or wood, according to the rank of the wearer. Men shave their faces until the age of twenty-five, after which moustache and beard are allowed to grow, though the cheeks are kept free from hair. Their burial customs are peculiar and elaborate, and their large sepulchres, generally mitre-shaped, and scattered all over the country, according to Chinese fashion, form a striking feature of the landscape. The marriage customs are also remarkable. Preliminaries are negotiated by a middleman, as in China and Japan, and the subsequent procedure extends over several days. The chief staple of the people's diet is the sweet potato, and pork is the principal luxury. An ancient law, still in force, requires each family to keep four pigs. In times of scarcity a species of sago (obtained from the *Cycas revoluta*) is eaten. There is a remarkable absence of religious influence in Luchu. Places of worship are few, and the only function discharged by Buddhist priests seems to be to officiate at funerals. The people are distinguished by gentleness, courtesy and docility, as well as by marked avoidance of crime. With the exception of petty thefts, their Japanese administrators find nothing to punish, and for nearly three centuries no such thing as a lethal weapon has been known in Luchu. Professor Chamberlain states that the Luchuan language resembles the Japanese in about the same degree as Italian resembles French, and says that they are sister tongues, many words being identical, others differing only by letter changes which follow certain fixed analogies, and sentences in the one being capable of translation into the other word for word, almost syllable for syllable.

History.—Tinsunshi, "Grandson of Heaven," is the mythical founder of the Luchu monarchy. Towards the close of the 12th century his descendants were driven from the throne by rebellion, but the old national party soon found a victorious leader in Shunten, son of Tametomo, a member of the famous Minamoto family, who, having been expelled from Japan, had come to Luchu and married there. The introduction of the arts of reading and writing are assigned to Shunten's reign. Chinese invasions of Luchu may be traced back to A.D. 605, but they did not result in annexation; and it was in 1372 that China first obtained from the Luchuans recognition of supremacy. Luchuan relations with Japan had long been friendly, but at the end of the 16th century the king refused Japan assistance against Korea, and in 1609 the prince of Satsuma invaded the islands with 3000 men, took the capital by storm, captured the king and carried him off to Kagoshima. A few years later he was restored to his throne on condition of acknowledging Japanese suzerainty and paying tribute. The Luchuans nevertheless continued to pay tribute to China also.

The Chinese government, however, though taking a benevolent interest in the welfare of the islanders, never attempted to bring them under military sway. The incongruity of this state of affairs did not force itself upon Japan's attention so long as her own empire was divided into a number of semi-independent principalities. But in 1879 the Japanese government, treating Luchu as an integral part of the mikado's dominions, dethroned its prince, pensioned him as the other feudal chiefs had been pensioned, and converted Luchu into a prefecture under the name of Okinawa. This name signifies "extended rope," and alludes to the attenuated nature of the archipelago. China remonstrating, a conference was held in Peking, when plenipotentiaries of the two empires signed an agreement to the effect that the archipelago should be divided equally between the claimants. The Chinese government, however, refused to ratify this compromise, and the Japanese continued their measures for the effective administration of all the islands. Ultimately (1895) Formosa also came into Japan's possession, and her title to the whole chain of islands ceased to be disputed.

Though Captain Broughton, of H.M.S. "Providence," was wrecked on Miyako-shima and subsequently visited Nafa in 1797, it was not till the "Alceste" and "Lyra" expedition in 1816-1817, under Captains Basil Hall and Murray Maxwell, that detailed information was obtained about Luchu. The people at that time showed a curious mixture of courtesy and shyness. From 1844 efforts were made by both Catholic (French) and Protestant missionaries to Christianize them, but though hospitable they made it clear that these efforts were unwelcome. Further visits were made by British vessels under Captain Beechey (1826) and Sir Edward Belcher (1845). The American expedition under Commodore M. C. Perry (1853) added largely to knowledge of the islands, and concluded a treaty with the Luchuan government.

See Basil Hall, *Account of a Voyage of Discovery to the West Coast of Corea and the Great Loo-choo Island* (London, 1818); Comm. M. C. Perry, *Narrative of the Expedition of an American Squadron to the China Seas and Japan*, 1852-1854 (Washington, 1856); B. H. Chamberlain, "The Luchu Islands and their Inhabitants," in the *Geographical Journal*, vol. v. (1895); "Contributions to a Bibliography of Luchu," in *Trans. Asiatic Soc. Japan*, xxiv. (1896); C. S. Leavenworth, "History of the Loo-choo Islands," *Journ. China Br. Royal Asiatic Soc.* xxxvi. (1905).

1 Note in *Geographical Journal*, xx., on S. Yoshiwara, "Raised Coral Reefs in the Islands of the Riukiu Curve," in *Journ. Coll. of Science, Imp. Univ., Tokyo* (1901).

LUCIA (or Lucy), ST, virgin and martyr of Syracuse, whose name figures in the canon of the mass, and whose festival is celebrated on the 13th of December. According to the legend, she lived in the reign of Diocletian. Her mother, having been miraculously cured of an illness at the sepulchre of St Agatha in Catania, was persuaded by Lucia to distribute all her wealth to the poor. The youth to whom the daughter had been betrothed forthwith denounced her to Pascasius, the prefect, who ordered that she should be taken away and subjected to shameful outrage. But it was found that no force which could be applied was able to move her from the spot on which she stood; even boiling oil and burning pitch had no power to hurt her,

until at last she was slain with the sword. The most important documents concerning St Lucy are the mention in the *Martyrologium Hieronymianum* and the ancient inscription discovered at Syracuse, in which her festival is indicated. Many paintings represent her bearing her eyes in her hand or on a salver. Some artists have even represented her blind, but nothing in her *Acta* justifies this representation. It is probable that it originated in a play upon words (Lucia, from Lat. *lux*, light), just as St Clair is invoked in cases of eye-disease.

See O. Caietanus, *Vitae sanctorum Siculorum*, i. 114-121 (Palermo, 1657); Ioannes de Ioanne, *Acta sincera sanctae Luciae* (Palermo, 1758); *Analecta Bollandiana*, xxii. 492; Cahier, *Caractéristiques des saints*, i. 105 (Paris, 1867).

(H. De.)

LUCIAN (d. 312), Christian martyr, was born, like the famous, heathen writer of the same name, at Samosata. His parents, who were Christians, died when he was in his twelfth year. In his youth he studied under Macarius of Edessa, and after receiving baptism he adopted a strictly ascetic life, and devoted himself with zeal to the continual study of scripture. Settling at Antioch when Malchion was master of the Greek school he became a presbyter, and, while supporting himself by his skill as a rapid writer, became celebrated as a teacher, so that he is regarded as the founder of the famous theological school of Antioch. He did not escape suspicion of heresy, and is represented as the connecting link between Paul of Samosata and Arius. Indeed, on the deposition of the former (A.D. 268) he was excluded from ecclesiastical fellowship by three successive bishops of Antioch, while Arius seems to have been among his pupils (Theodoret, *Hist. Eccl.* i. 3, 4). He was, however, restored before the outbreak of persecution, and the reputation won by his high character and learning was confirmed by his courageous martyrdom. He was carried to Nicomedia before Maximin Daza, and persisting in his faith perished on the 7th of January 312, under torture and hunger, which he refused to satisfy with food offered to idols. His defence is preserved by Rufinus (ix. 6; on Eusebius, *Hist. Eccl.* ix. 9). His remains were conveyed to Drepanum in Bithynia, and under Constantine the town was founded anew in his honour with the name of Helenopolis, and exempted from taxes by the emperor (A.D. 327) (see *Chron. Pasch.*, Bonn ed., p. 527). Here in 387, on the anniversary of his death, Chrysostom delivered the panegyrical homily from which, with notices in Eusebius, Theodoret and the other ecclesiastical historians, the life by Jerome (*Vir. Ill.* cap. 77), but especially from the account by S. Metaphrastes (cited at length in Bernhardy's notes to Suidas, *s.v.* νοθεύει), the facts above given are derived. See also, for the celebration of his day in the Syriac churches, Wright, *Cat. of Syr.* MSS. p. 283.

Jerome says that Lucian wrote *Libelli de fide* and several letters, but only a short fragment of one epistle remains (*Chron. Pasch.*, ed. Dindorf, i. 516). The authorship of a confession of faith ascribed to Lucian and put forth at the semi-Arian synod of Antioch (A.D. 341) is questioned. Lucian's most important literary labour was his edition of the Greek Old Testament corrected by the Hebrew text, which, according to Jerome (*Adv. Ruf.* ii. 77), was in current use from Constantinople to Antioch. That the edition of Lucian is represented by the text used by Chrysostom and Theodoret, as well as by certain extant MSS., such as the Arundelian of the British Museum, was proved by F. Field (*Prol. ad Origenis Hexapla*, cap. ix.).

Before the publication of Field's *Hexapla*, Lagarde had already directed his attention to the Antiochian text (as that of Lucian may be called) and ultimately published the first part (Genesis, 2 Esdras, Esther) of a provisional reconstructed text. The distinguishing marks of the Lucianic recension are thus summarized by S. R. Driver, *Notes on Heb. Text of Samuel*, p. li. seq.: (1) The substitution of synonyms for the words employed by the Septuagint; (2) the occurrence of double renderings; (3) the occurrence of renderings "which presuppose a Hebrew original self-evidently superior in the passages concerned to the existing Massoretic text," a peculiarity which makes it very important for the criticism of the Hebrew Bible. From a statement of Jerome in his preface to the gospels it seems probable that Lucian had also a share in fixing the Syrian recension of the New Testament text, but of this it is impossible to speak with certainty. He was associated in his work with the Hebraist Dorotheus.

See, generally, A. Harnack's art. in Hauck-Herzog, *Realencyk.* vol. xi., and for "remains" Routh, Rel. Sac. iv. 3-17. A full account of his recension of the Septuagint is given in H. B. Swete's *Introduction to the Old Testament in Greek*, p. 81 sqq.; and a good account of his doctrinal position in the prolegomena to the volume on *Athanasius* in the series of Nicene and Post-Nicene Fathers (p. xxviii.) and A. Harnack's *History of Dogma*, especially vol. iv.

LUCIAN [Λουκιανός] (*c.* A.D. 120-180), Greek satirist of the Silver Age of Greek literature, was born at Samosata on the Euphrates in northern Syria. He tells us in the *Somnium* or *Vita Luciani*, 1, that, his means being small, he was at first apprenticed to his maternal uncle, a statuary, or rather sculptor of the stone pillars called Hermae. Having made an unlucky beginning by breaking a marble slab, and having been well beaten for it, he absconded and returned home. Here he had a dream or vision of two women, representing Statuary and Literature. Both plead their cause at length, setting forth the advantages and the prospects of their respective professions; but the youth chooses Παιδεία, and decides to pursue learning. For some time he seems to have made money as a ῥήτωρ, following the example of Demosthenes, on whose merits and patriotism he expatiates in the dialogue *Demosthenis Encomium*. He was very familiar with the rival schools of philosophy, and he must have well studied their teachings; but he lashes them all alike, the Cynics, perhaps, being the chief object of his derision. Lucian was not only a sceptic; he was a scoffer and a downright unbeliever. He felt that men's actions and conduct always fall far short of their professions and therefore he concluded that the professions themselves were worthless, and a mere guise to secure popularity or respect. Of Christianity he shows some knowledge, and it must have been somewhat largely professed in Syria at the close of the 2nd century.[1] In the *Philopatris* (*q.v.*), though the dialogue so called is generally regarded as spurious, there is a statement of the doctrine of the Trinity,[2] and the "Galilaean who had ascended to the third heaven" (12), and "renewed" (ἀνεκαίνισεν) by the waters of baptism, may possibly allude to St Paul. The doctrines of the Λόγος and the "Light of the world," and that God is in heaven making a record of the good and bad actions of men,[3] seem to have come from the same source, though the notion of a written catalogue of human actions to be used in judgment was familiar to Aeschylus and Euripides.

As a satirist and a wit Lucian occupies in prose literature the unique position which Aristophanes holds in Greek poetry. But whether he is a mere satirist, who laughs while he lashes, or a misanthrope, who hates while he derides, is not very clear. In favour of the former view it may be said that the two main objects of his ridicule are mythology and the sects of philosophy; in favour of the latter, his bitter exposure of imposture and chicanery in the *Alexander*, and the very severe attacks he makes on the "humbug" of philosophy,[4] which he everywhere assails with the most acrimonious and contemptuous epithets.

As a writer Lucian is fluent, easy and unaffected, and a close follower of the best Attic models, such as Plato and the orators. His style is simpler than Plutarch's, and some of his compositions, especially the *Dialogues of the Gods* (pp. 204-287)

and *of the Marine Deities* (288-327), and, above all, the *Dialogues of the Dead* (329-454), are models of witty, polished and accurate Greek composition. Not less clever, though rather lax in morality, are the ἑταιρικοί διάλογοι (pp. 280-325), which remind us somewhat of the letters of Alciphron. The sarcasms on the popular mythology, the conversations of Pluto, Hermes, Charon and others of the powers in Hades, show a positive disbelief in any future state of existence. The model Lucian followed in these dialogues, as well in the style as in the sparkling and playful repartee, was the Platonic conversations, founded on the drama, of which the dialogue may be called the prose representative. Aristotle never adopted it, perhaps regarding it as beneath the true dignity of philosophy. The dialogue, in fact, was revived and improved by Lucian,[5] the old traditions of the λογοποιοί and λογογράφοι, and, above all, the immense influence of rhetoric as an art, having thrown some discredit on a style of composition which, as introduced by Plato, had formed quite a new era in Greek prose composition. For rhetoric loved to talk, expatiate and declaim, while dialectic strove to refute by the employment of question and answer, often in the briefest form.

Lucian evinces a perfect mastery over a language as wonderful in its inflections as in its immense and varied vocabulary; and it is a well-merited praise of the author to say that to a good Greek scholar the pages of Lucian are almost as easy and as entertaining as an English or French novel. It is true that he employs some forms and compounds which were not in use in the time of Plato or Demosthenes, and, as one who lived under Roman rule, has a tendency towards Latinisms. But his own sentiments on the propriety of diction are shown by his reproof to Lexiphanes, “if anywhere you have picked up an out-of-the-way word, or coined one which you think good, you labour to adapt the sense of it, and think it a loss if you do not succeed in dragging it in somewhere, even when it is not really wanted.”

Lucian founded his style, or obtained his fluency, from the successful study of rhetoric, by which he appears to have made a good income from composing speeches which attracted much attention. At a later period in life he seems to have held a lucrative legal office in Egypt, which he retained till his death.

His extant works are so numerous that of some of the principal only a short sketch can be given. More than 80 pieces have come down to us under his name (including three collections of 71 shorter dialogues), of which about 20 are spurious or of doubtful authorship. To understand them aright we must remember that the whole moral code, the entire “duty of man,” was included, in the estimation of the pagan Greek, in the various schools of philosophy. As these were generally rivals, and the systems they taught were more or less directly antagonistic, truth presented itself to the inquirer, not as one, but as manifold. The absurdity and the impossibility of this forms the burden of all Lucian’s writings. He could only form one conclusion, viz. that there is no such thing as truth.

One of the best written and most amusing treatises of antiquity is Lucian’s *True History*, forming a rather long narrative in two books, which suggested Swift’s *Gulliver’s Travels*, Rabelais’s *Voyage of Pantagruel* and Cyrano de Bergerac’s *Journey to the Moon*. It is composed, the author tells us in a brief introduction, not only as a pastime and a diversion from severer studies, but avowedly as a satire on the poets and logographers who had written so many marvellous tales. He names Ctesias and Homer; but Hellanicus and Herodotus, perhaps other λογοποιοί still earlier, appear to have been in his mind.[6] The only true statement in his *History*, he wittily says (p. 72), is that it contains nothing but lies from beginning to end.

The main purport of the story is to describe a voyage to the moon. He set out, he tells us, with fifty companions, in a well-provisioned ship, from the “Pillars of Hercules,” intending to explore the western ocean. After eighty days’ rough sailing they came to an island on which they found a Greek inscription, “This was the limit of the expedition of Heracles and Dionysus”; and the visit of the wine-god seemed attested by some miraculous vines which they found there. After leaving the island they were suddenly carried up, ship and all, by a whirlwind into the air, and on the eighth day came in sight of a great round island shining with a bright light (p. 77), and lying a little above the moon. In a short time they are arrested by a troop of gigantic “horse-vultures” and brought as captives to the “man in the moon,” who proves to be Endymion. He is engaged in a war with the inhabitants of the sun, which is ruled by King Phaëthon, the quarrel having arisen from an attempt to colonize the planet Venus (Lucifer). The voyagers are enlisted as “Moonites,” and a long description follows of the monsters and flying dragons engaged in the contest. A fight ensues, in which the slaughter is so great that the very clouds are tinged with red (p. 84). The long description of the inhabitants of the moon is extremely droll and original. After descending safely into the sea, the ship is swallowed by a huge “sea serpent” more than 100 miles long. The adventures during the long confinement in the creature’s belly are most amusing; but at last they sail out through the chinks between the monster’s teeth, and soon find themselves at the “Fortunate Islands.” Here they meet with the spirits of heroes and philosophers of antiquity, on whom the author expatiates at some length. The tale comes to an abrupt end with an allusion to Herodotus in the promise that he “will tell the rest in his next books.”

Another curious and rather long treatise is entitled Λούκιος ἢ Ὄνος, the authorship of which is regarded as doubtful. Parts of the story are coarse enough; the point turns on one Lucius visiting in a Thessalian family, in which the lady of the house was a sorceress. Having seen her changed into a bird by anointing herself with some potent drug, he resolves to try a similar experiment on himself, but finds that he has become an ass, retaining, however, his human senses and memory. The mistake arose from his having filched the wrong ointment; however, he is assured by the attendant, Palaestra, that if he can but procure roses to eat, his natural form will be restored. In the night a party of bandits break into the house and carry off the stolen goods into the mountains on the back of the unfortunate donkey, who gets well beaten for stumbling on the rough road. Seeing, as he fancies, some roses in a garden, he goes in quest of them, and again gets beaten as a thief by the gardener (p. 585). After many adventures with the bandits, he attempts to run away, but is caught. A council is held, and he is condemned to die together with a captive girl who had essayed to escape on his back. Suddenly, however, soldiers appear, and the bandits are arrested (p. 595). Again the ass escapes “to the great and populous city of Beroea in Macedonia” (p. 603). Here he is sold to a strolling conjurer, afterwards to a market-gardener; and both experiences are alike painful. Again he passes into the possession of a cook, where he gets fat and sleek on food more suited to his concealed humanity than the hard fare he has of late lived upon (p. 614). At last, during an exhibition in the theatre, he sees some roses being carried past, and, making a successful rush to devour them, he recovers his former shape. “I am Lucius,” he exclaims to the wondering president of the exhibition, “and my brother’s name is Caius. It was a Thessalian witch that changed me into a donkey.” Thus all ends well, and he returns safe to his country.

The treatise *On the Syrian Goddess* (Mylitta, the moon-goddess, the Semitic Aphrodite) is written in the Ionic dialect in imitation perhaps of the style of Herodotus, though the resemblance is by no means close. The writer professes to be an Assyrian (p. 452), and to describe the wonders in the various temples of Palestine and Syria; he descants on the eunuchs of Syria and the origin of the self-imposed privation of manhood professed and practised by the Galli. The account of the temples, altars and sacrifices is curious, if really authentic; after the manner of Pausanias it is little more than a list, with the reasons in most cases added, or the origin of the custom explained.

De Morte Peregrini is a narrative of one Proteus, a Cynic, who after professing various doctrines, and among them those of Christianity, ended his own life by ascending a burning pyre (see Peregrinus Proteus).

Bis accusatus (“Twice Accused”) is a dialogue beginning with a satire on the folly of the popular notion that the gods alone are happy. Zeus is represented as disproving this by enumerating the duties that fall to their lot in the government of the world, and Hermes remarks on the vast crowds of philosophers of rival sects, by whose influence the respect and worship formerly paid to the gods have seriously declined. A trial is supposed to be held under the presidency of the goddess Δίκη, between the Academy, the Porch, the schools of the Cynics and Epicureans, and Pleasure, Revelry, Virtue, Luxury, &c., as variously impugned or defended by them. Then Conversation and Rhetoric come before the court, each having an action for defamation to bring against Syrus the essayist, who of course is Lucian himself (p. 823). His defence is heard, and in both cases he is triumphantly acquitted. This essay is brilliant from its clever parodies of Plato and Demosthenes, and the satire on

the Socratic method of arguing by short questions and answers.

The *Lover of Lying* (Φιλοψεύδης) discusses the reason why some persons seem to take pleasure in falsehood for its own sake. Under the category of lying all mythology (*e.g.* that of Homer and Hesiod) is included, and the question is asked, why the hearers of such stories are amused by them? Quack remedies, charms and miraculous cures are included among the most popular kinds of falsehood; witchcraft, spiritualism, exorcism, expulsion of devils, spectres, are discussed in turn, and a good ghost story is told in p. 57. An anecdote is given of Democritus, who, to show his disbelief in ghosts, had shut himself up in a tomb, and when some young men, dressed up with death's heads, came to frighten him at night, he did not even look up, but called out to them, "Stop your joking" (p. 59). This treatise, a very interesting one, concludes with the reflection that truth and sound reason are the only remedies for vain and superstitious terrors.

The dialogue *Navigium seu Vota* ("The Ship or the Wishes") gives an apparently authentic account of the measurements and fittings of an Egyptian ship which has arrived with a cargo of corn at the Peiraeus, driven out of its course to Italy by adverse winds. The full length is 180 ft., the breadth nearly 50, the depth from deck to the bottom of the hold 43 ft. The "wishes" turn on a party of friends, who have been to see the ship, declaring what they would most desire to possess. One would have the ship filled with gold, another a fine house with gold plate; a third would be a "tyrant" with a large force devoted to his interests; a fourth would like to make himself invisible, enter any house that he pleased, and be transported through the air to the objects of his affection. After hearing them all, the first speaker, Lycinus (Lucian), says that he is content with the privilege of laughing heartily at the vanity of human wishes, especially when they are those of professed philosophers.

The dialogue between Philo and Lycinus, *Convivium seu Lapithae*, is a very amusing description of a banquet, at which a party of dignified philosophers quarrelled over their viands at a marriage feast, and came to blows. The style is a good imitation of Plato, and the scene reminds one of the "clients' dinner" in the fifth satire of Juvenal. Matters come to a climax by the attempt of one of the guests, Zenothemis, to secure for himself a fatter fowl which had been served to his next neighbour Hermon. Each seizes his bird and hits the other with it in the face, at the same time pulling his beard. Then a general fight ensues. The story is a satire on philosophy, the favourite topic of a writer who believed neither in gods nor in men.

The *Piscator* ("Fisherman"), a dialogue between Lucian, Socrates, Pythagoras, Empedocles, Plato and others, commences with a general attack on the author as the enemy of philosophy. Socrates proposes that the culprit should be tried, and that Philosophia should assist in the prosecution. Lucian declares that he does not know where such a person lives, long as he has been looking for her (11). She is found at last, but declares Lucian has never disparaged her, but only impostors and pretenders under her name (15). He makes a long defence (pp. 598-606), abusing the philosophers in the sort of language in which some schools of theologians abuse the monks of the middle ages (34). The trial is held in the Acropolis of Athens, and the sham philosophers, dreading a verdict against them, throw themselves from the rock. A Cynic flings away his scrip in the hurry, and on examination it is found to contain, not books or loaves of bread, but gold coins, dice and fragrant essences (44). At the end Lucian baits his hook with a fig and a gold coin, and catches gluttonous strollers in the city while seated on the wall of the Acropolis.

The *Voyage Home* (Κατάπλους) opens with the complaint that Charon's boat is kept waiting for Hermes, who soon appears with his troop of ghosts. Among them is a τύραννος, one Megapenthes, who, as his name is intended to express, mourns greatly over the life he has just left. Amusing appeals are made by other souls for leave to return to life, and even bribes are offered to the presiding goddess of destiny, but Clotho is inexorable. The moral of the piece is closely like that of the parable of Dives and Lazarus: the rich and prosperous bewail their fate, while the poor and afflicted find rest from their troubles, and have no desire to return to them. The τύραννος here is the man clothed in purple and fine linen, and Lucian shows the same bitter dislike of tyrants which Plato and the tragic writers display. The heavy penalty is adjudged to Megapenthes that he may ever remember in the other world the misdeeds done in life.

The *Sales of Lives* is an auction held by Zeus to see what price the lives of philosophers of the rival sects will bring. A Pythagorean, who speaks in the Ionic dialect, first undergoes an examination as to what he can teach, and this contains an enumeration of the doctrines usually ascribed to that sect, including metempsychosis. He is valued at 7s. 6d., and is succeeded by Diogenes, who avows himself the champion of truth, a cosmopolitan (8), and the enemy of pleasure. Socrates brings two talents, and is purchased by Dion, tyrant of Syracuse (19). Chrysippus, who gives some specimens of his clever quibbles,[7] is bought for fifty pounds, Aristotle for nearly a hundred, while Pyrrho the sceptic (or one of his school), who professes to "know nothing," brings four pounds, "*because* he is dull and stupid and has no more sense than a grub" (27). But the man raises a doubt, "whether or not he has really been bought," and refuses to go with the purchaser till he has fully considered the matter.

Timon is a very amusing and witty dialogue. The misanthrope, once wealthy, has become a poor farm-labourer, and reproaches Zeus for his indifference to the injustice of man. Zeus declares that the noisy disputes in Attica have so disgusted him that he has not been there for a long time (9). He tells Hermes to conduct Plutus to visit Timon, and see what can be done to help him. Plutus, who at first refuses to go, is persuaded after a long conversation with Hermes, and Timon is found by them digging in his field (31). Poverty is unwilling to resign her votary to wealth; and Timon himself is with difficulty persuaded to turn up with his mattock a crock of gold coins. Now that he has once more become rich, his former flatterers come cringing with their congratulations and respects, but they are all driven off with broken heads or pelted with stones. Between this dialogue and the *Plutus* of Aristophanes there are many close resemblances.

Hermotimus (pp. 739-831) is one of the longer dialogues, Hermotimus, a student of the Stoic philosophy for twenty years (2), and Lucian (Lycinus) being the interlocutors. The long time—forty years at the least—required for climbing up to the temple of virtue and happiness, and the short span of life, if any, left for the enjoyment of it, are discussed. That the greatest philosophers do not always attain perfect indifference, the Stoic *ultimatum*, is shown by the anecdote of one who dragged his pupil into court to make him pay his fee (9), and again by a violent quarrel with another at a banquet (11). Virtue is compared to a city with just and good and contented inhabitants; but so many offer themselves as guides to the right road to virtue that the inquirer is bewildered (26). What is truth, and who are the right teachers of it? The question is argued at length, and illustrated by a peculiar custom of watching the pairs of athletes and setting aside the reserved combatant (πάρεδρος) at the Olympian games by the marks on the ballots (40-43). This, it is argued, cannot be done till all the ballots have been examined; so a man cannot select the right way till he has tried all the ways to virtue. But to know the doctrines of all the sects is impossible in the term of a life (49). To take a taste of each, like trying a sample of wine, will not do, because the doctrines taught are not, like the crock of wine, the same throughout, but vary or advance day by day (59). A suggestion is made (68) that the searcher after truth should begin by taking lessons in the science of discrimination, so as to be a good judge of truth before testing the rival claims. But who is a good teacher of such a science? (70). The general conclusion is that philosophy is not worth the pursuit. "If I ever again," says Hermotimus, "meet a philosopher on the road, I will shun him, as I would a mad dog."

The *Anacharsis* is a dialogue between Solon and the Scythian philosopher, who has come to Athens to learn the nature of the Greek institutions. Seeing the young men performing athletic exercises in the Lyceum, he expresses his surprise at such a waste of energy. This gives Socrates an opportunity of descanting at length on training as a discipline, and emulation as a motive for excelling. Love of glory, Solon says, is one of the chief goods in life. The argument is rather ingenious and well put; the style reminds us of the minor essays of Xenophon.

The *Alexander* or *False Prophet* is the subject of a separate article (see Alexander the Paphlagonian).

These are the chief of Lucian's works. Many others, *e.g. Prometheus*, *Menippus*, *Life of Demonax*, *Toxaris*, *Zeus Tragoedus*, *The Dream or the Cock*, *Icaromenippus* (an amusing satire on the physical philosophers), are of considerable literary value.

(F. A. P.)

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1 In the *Alexander* (25) we are told that the province of Pontus, due north of Syria, was "full of Christians."

2 *Philopatris*, 12, ὑψιμέδοντα Θεὸν μέγαν ἄμβροτον οὐρανίωνα, υἱὸν Πατρὸς, Πνεῦμα ἐκ πατρὸς ἐκπορευόμενον, ἕν ἐκ τριῶν καὶ ἐξ ἑνὸς τρία, a passage which bears on the controverted procession "a Patre Filioque."

3 *Philopatris*, 13. Aesch. *Eum.* 265, δελτογράφῳ δὲ πάντ᾽ ἐπωπᾷ φρενί.

4 In *Hermotimus* (51) Hermotimus says to Lycinus (who must be assumed to represent Lucian himself), ὑβριστὴς ἀεὶ σὺ, καὶ οὐκ οἶδ᾽ ὅ τι παθὼν μισεῖς φιλοσοφίαν καὶ ἐς τοῦς φιλοσοφοῦντας ἀποσκώπτεις. In *Icaromenippus* (5; see also 29) he says he always guessed who were the best physical philosophers "by their sour-faced looks, their paleness of complexion and the length of their beards."

5 He says (speaking as Σύρος in *Bis accusatus*, 34) that he found dialogue somewhat out of repute from the too numerous questions (*i.e.* employed by Plato), and brought it up to a more human and natural standard, substituting banter and repartee for dialectic quibbles and close logical reasoning.

6 He says (p. 127) that he saw punished in Hades, more severely than any other sinners, writers of false narratives, among whom were Ctesias of Cnidus and Herodotus. Yet in the short essay inscribed *Herodotus* (p. 831), he wishes it were possible for him to imitate the many excellencies of that writer.

7 E.g. "A stone is a body; a living creature is a body; you are a living creature; therefore you are a stone." Again: "Is *every* body possessed of life?" "No." "Is a stone possessed of life?" "No." "Are *you* a body?" "Yes." "A *living* body?" "Yes." "Then, if a living body, you are not a stone."

LUCIFER (d. 370/1), bishop of Cagliari (hence called *Caralitanus*), an ardent supporter of the cause of Athanasius. After the unfavourable result of the synod of Arles in 353 he volunteered to endeavour to obtain a new and impartial council. He was accordingly sent by Pope Liberius, with Pancratius the presbyter and Hilarius the deacon, but could not prevent the condemnation of Athanasius, which was renewed at Milan in 355. For his own persistent adherence to the orthodox creed he was banished to Germanicia in Commagene; he afterwards lived at Eleutheropolis in Palestine, and finally in the upper Thebaid. His exile came to an end with the publication of Julian's edict in 362. From 363 until his death in 371 he lived at Cagliari in a state of voluntary separation from ecclesiastical fellowship with his former friends Eusebius of Vercelli, Athanasius and the rest, on account of their mild decision at the synod of Alexandria in 362 with reference to the treatment of those who had unwillingly Arianized under the persecutions of Constantius. Lucifer was hardly sufficiently educated to appreciate the real question at issue, and the sect which he thus founded did not continue long after his death. It is doubtful whether it ever formulated any distinctive doctrine; certainly it developed none of any importance. The memory of Lucifer is still cherished in Sardinia; but, although popularly regarded there as a saint, he has never been canonized.

The controversial writings of Lucifer, dating from his exile, are chiefly remarkable for their passionate zeal, and for the boldness and violence of the language addressed to the reigning emperor, whom he did not scruple to call the enemy of God and a second Saul, Ahab and Jeroboam. Their titles, in the most probable chronological order, are *De non parcendis in Deum delinquentibus, De regibus apostaticis, Ad Constantium Augustum pro Athanasio libri ii., De non conveniendo cum haereticis and Moriendum esse pro Filio Dei*. Their quotations of Scripture are of considerable value to the critical student of the Latin text before Jerome. They were first collected and edited by Tilius (Paris, 1568); the best edition is that of W. Hartel in the Vienna *Corpus, Script. Eccl. Lat.* (1886). See also G. Krüger, *Lucifer Bischof von Cagliari und das Schisma der Luciferianer* (Leipzig, 1886); F. G. Kenyon, *Textual Criticism*, pp. 181, 221.

LUCIFER (the Latinized form of Gr. φωσφόρος, "light-bearer"), the name given to the "morning star," *i.e.* the planet Venus when it appears above the E. horizon before sunrise, and sometimes also to the "evening star," *i.e.* the same planet in the W. sky after sundown, more usually called Hesperus (*q.v.*). The term "day star" (so rendered in the Revised Version) was used poetically by Isaiah for the king of Babylon: "How art thou fallen from heaven, O Lucifer, son of the morning! how art thou cut down to the ground, which didst weaken the nations" (Is. xiv. 12, Authorized Version). The words ascribed to Christ in Luke x. 18: "I beheld Satan as lightning fall from heaven" (cf. Rev. ix. 1), were interpreted by the Christian Fathers as referring to the passage in Isaiah; whence, in Christian theology, Lucifer came to be regarded as the name of Satan before his fall. This idea finds its most magnificent literary expression in Milton's *Paradise Lost*. In this sense the name is most commonly associated with the familiar phrase "as proud as Lucifer."

LUCILIUS, GAIUS (*c.* 180-103 B.C.), the earliest Roman satirist, of whose writings only fragments remain, was born at Suessa Aurunca in Campania. The dates assigned by Jerome for his birth and death are 148 and 103 or 102 B.C. But it is impossible to reconcile the first of these dates with other facts recorded of him, and the date given by Jerome must be due to an error, the true date being about 180 B.C. We learn from Velleius Paterculus that he served under Scipio at the siege of Numantia in 134. We learn from Horace that he lived on the most intimate terms of friendship with Scipio and Laelius, and that he celebrated the exploits and virtues of the former in his satires. Fragments of those books of his satires which seem to have been first given to the world (books xxvi.-xxix.) clearly indicate that they were written in the lifetime of Scipio. Some of these bring the poet before us as either corresponding with, or engaged in controversial conversation with, his great friend. One line—

Percrepa pugnam Popilli, facta Corneli cane—

in which the defeat of M. Popillius Laenas, in 138, is contrasted with the subsequent success of Scipio, bears the stamp of having been written while the news of the capture of Numantia was still fresh. It is in the highest degree improbable that Lucilius served in the army at the age of fourteen; it is still more unlikely that he could have been admitted into the familiar intimacy of Scipio and Laelius at that age. It seems a moral impossibility that between the age of fifteen and nineteen—*i.e.* between 133 and 129, the year of Scipio's death—he could have come before the world as the author of an entirely new kind of composition, and one which, to be at all successful, demands especially maturity of judgment and experience. It may further be said that the well-known words of Horace (*Satires*, ii. 1, 33), in which he characterizes the vivid portraiture of his life, character and thoughts, which Lucilius bequeathed to the world,

quo fit ut omnis
Votiva pateat veluti descripta tabella
Vita senis,[1]

lose much of their force unless *senis* is to be taken in its ordinary sense—which it cannot be if Lucilius died at the age of forty-six. He spent the greater part of his life at Rome, and died, according to Jerome, at Naples. Lucilius belonged to the equestrian order, a fact indicated by Horace's notice of himself as "infra Lucili censum." Though not himself belonging to any of the great senatorial families, he was in a position to associate with them on equal terms. This circumstance contributed to the boldness, originality and thoroughly national character of his literary work. Had he been a "semi-Graecus," like Ennius and Pacuvius, or of humble origin, like Plautus, Terence or Accius, he would scarcely have ventured, at a time when the senatorial power was strongly in the ascendant, to revive the rôle which had proved disastrous to Naevius; nor would he have had the intimate knowledge of the political and social life of his day which fitted him to be its painter. Another circumstance determining the bent of his mind was the character of the time. The origin of Roman political and social satire is to be traced to the same disturbing and disorganizing forces which led to the revolutionary projects and legislation of the Gracchi.

The reputation which Lucilius enjoyed in the best ages of Roman literature is proved by the terms in which Cicero and Horace speak of him. Persius, Juvenal and Quintilian vouch for the admiration with which he was regarded in the first century of the empire. The popularity which he enjoyed in his own time is attested by the fact that at his death, although he had filled none of the offices of state, he received the honour of a public funeral. His chief claim to distinction is his literary originality. He may be called the inventor of poetical satire, as he was the first to impress upon the rude inartistic medley, known to the Romans by the name of *satura*, that character of aggressive and censorious criticism of persons, morals, manners, politics, literature, &c. which the word satire has ever since denoted. In point of form the satire of Lucilius owed nothing to the Greeks. It was a legitimate development of an indigenous dramatic entertainment, popular among the Romans before the first introduction of the forms of Greek art among them; and it seems largely also to have employed the form of the familiar epistle. But the style, substance and spirit of his writings were apparently as original as the form. He seems to have commenced his poetical career by ridiculing and parodying the conventional language of epic and tragic poetry, and to have used the language commonly employed in the social intercourse of educated men. Even his frequent use of Greek words, phrases and quotations, reprehended by Horace, was probably taken from the actual practice of men, who found their own speech as yet inadequate to give free expression to the new ideas and impressions which they derived from their first contact with Greek philosophy, rhetoric and poetry. Further, he not only created a style of his own, but, instead of taking the substance of his writings from Greek poetry, or from a remote past, he treated of the familiar matters of daily life, of the politics, the wars, the administration of justice, the eating and drinking, the money-making and money-spending, the scandals and vices, which made up the public and private life of Rome in the last quarter of the 2nd century B.C. This he did in a singularly frank, independent and courageous spirit, with no private ambition to serve, or party cause to advance, but with an honest desire to expose the iniquity or incompetence of the governing body, the sordid aims of the middle class, and the corruption and venality of the city mob. There was nothing of stoical austerity or of rhetorical indignation in the tone in which he treated the vices and follies of his time. His character and tastes were much more akin to those of Horace than of either Persius or Juvenal. But he was what Horace was not, a thoroughly good hater; and he lived at a time when the utmost freedom of speech and the most unrestrained indulgence of public and private animosity were the characteristics of men who took a prominent part in affairs. Although Lucilius took no active part in the public life of his time, he regarded it in the spirit of a man of the world and of society, as well as a man of letters. His ideal of public virtue and private worth had been formed by intimate association with the greatest and best of the soldiers and statesmen of an older generation.

The remains of Lucilius extend to about eleven hundred, mostly unconnected lines, most of them preserved by late grammarians, as illustrative of peculiar verbal usages. He was, for his time, a voluminous as well as a very discursive writer. He left behind him thirty books of satires, and there is reason to believe that each book, like the books of Horace and Juvenal, was composed of different pieces. The order in which they were known to the grammarians was not that in which they were written. The earliest in order of composition were probably those numbered from xxvi. to xxix., which were written in the trochaic and iambic metres that had been employed by Ennius and Pacuvius in their *Saturae*. In these he made those criticisms on the older tragic and epic poets of which Horace and other ancient writers speak. In them too he speaks of the Numantine War as recently finished, and of Scipio as still living. Book i., on the other hand, in which the philosopher Carneades, who died in 128, is spoken of as dead, must have been written after the death of Scipio. Most of the satires of Lucilius were written in hexameters, but, so far as an opinion can be formed from a number of unconnected fragments, he seems to have written the trochaic tetrameter with a smoothness, clearness and simplicity which he never attained in handling the hexameter. The longer fragments produce the impression of great discursiveness and carelessness, but at the same time of considerable force. He appears, in the composition of his various pieces, to have treated everything that occurred to him in the most desultory fashion, sometimes adopting the form of dialogue, sometimes that of an epistle or an imaginary discourse, and often to have spoken in his own name, giving an account of his travels and adventures, or of amusing scenes that he had witnessed, or expressing the results of his private meditations and experiences. Like Horace he largely illustrated his own observations by personal anecdotes and fables. The fragments clearly show how often Horace has imitated him, not only in expression, but in the form of his satires (see for instance i. 5 and ii. 2), in the topics which he treats of, and the class of social vices and the types of character which he satirizes. For students of Latin literature, the chief interest of studying the fragments of Lucilius consists in the light which they throw on the aims and methods of Horace in the composition of his satires, and, though not to the same extent, of his epistles. They are important also as materials for linguistic study; and they have considerable historical value.

Editions by F. D. Gerlach (1846), L. Müller (1872), C. Lachmann (1876, posthumous), F. Marx (1905); see also L. Müller, *Leben und Werke des Lucilius* (1876); "Luciliana," by H. A. J. Munro, in the *Journal of Philology*, vii. (1877); Mommsen, *Hist.*

of Rome, bk. iv. ch. 13; "Luciliana," by A. E. Housman, in *Classical Quarterly* (April, 1907); C. Cichorius, *Untersuchungen zu Lucilius* (Berlin, 1908).

(W. Y. S.; X.)

1 "And so it happens that the whole life of the old man stands clearly before us, as if it were represented on a votive picture."

LUCILIUS JUNIOR, a friend and correspondent of the younger Seneca, probably the author of *Aetna*, a poem on the origin of volcanic activity, variously attributed to Virgil, Cornelius Severus (epic poet of the Augustan age) and Manilius. Its composition has been placed as far back as 44 B.C., on the ground that certain works of art, known to have been removed to Rome about that date, are referred to as being at a distance from the city. But as the author appears to have known and made use of the *Quaestiones Naturales* of Seneca (written A.D. 65), and no mention is made of the great eruption of Vesuvius (A.D. 79), the time of its composition seems to lie between these two dates. In favour of the authorship of Lucilius are the facts that he was a friend of Seneca and acquainted with his writings; that he had for some time held the office of imperial procurator of Sicily, and was thus familiar with the locality; that he was the author of a poem on Sicilian subjects. It is objected that in the 79th letter of Seneca, which is the chief authority on the question, he apparently asks that Lucilius should introduce the hackneyed theme of Aetna merely as an episode in his contemplated poem, not make it the subject of separate treatment. The sources of the Aetna are Posidonius of Apamea, and perhaps the pseudo-Aristotelian *De Mundo*, while there are many reminiscences of Lucretius. It has come down in a very corrupt state, and its difficulties are increased by the unpoetical nature of the subject, the straining after conciseness, and the obtrusive use of metaphor.

Editions by J. Scaliger (1595), F. Jacob (1826), H. A. J. Munro (1867), M. Haupt (in his edition of Virgil, 1873), E. Bährens (in *Poetae latini minores*, ii), S. Sudhaus (1898), R. Ellis (1901, containing a bibliography of the subject); see also M. Haupt's *Opuscula*, i. 40, ii. 27, 162, iii. 437 (notes, chiefly critical); R. Ellis in *Journal of Philology*, xvi. 292; P. R. Wagler, *De Aetna poemate quaestiones criticae* (1884); B. Kruczkiewicz, *Poema de Aetna Monte* (1883, in which the ancient view of the authorship of Virgil is upheld); L. Alzinger, *Studia in Aetnam collata* (1896); R. Hildebrandt, *Beiträge zur Erklärung des Gedichtes Aetna* (1900); J. Vessereau (text, translation and commentary, 1905); Teuffel-Schwabe, *Hist. of Roman Literature* (Eng. trans. §§ 307, 308).

LUCINA, goddess of light, a title given to Juno and Diana as presiding over childbirth and bringing children into the light of the world. The full name is *lucina dea*, "the light-bringing goddess" (*lux*, light, hence adj. *lucinus*). It is also given to Hecate (Tibullus 3. 4. 13), as the bringer of terrible dreams, and is used metaphorically as a synonym for child-birth (Virg. *Georg*, iii. 60; Ovid, *Ars. Amai*. iii. 785).

LUCIUS, the name of three popes.

LUCIUS I., pope for eight months (253-254), spent a short period of his pontificate in exile. He is referred to in several letters of Cyprian (see *Epist.* lxviii. 5) as having been in agreement with his predecessor Cornelius in preferring the milder view on the question as to how the lapsed penitent should be treated. He is commemorated on the 4th of March.

(L. D.*)

LUCIUS II. (Gherardo Caccianemici dal Orso), pope from the 12th of March 1144 to the 15th of February 1145, a Bolognese, successively canon at his native city, cardinal priest of Sta Croce in Gerusalemme, treasurer of the Roman Church, papal legate in Germany for Honorius II., chancellor and librarian under Innocent II., was the successor of Celestine II. His stormy pontificate was marked by the erection of a revolutionary republic at Rome which sought to deprive the pope of his temporal power, and by the recognition of papal suzerainty over Portugal. He was succeeded by Eugenius III.

His letters are in J. P. Migne, *Patrol. Lat.* vol. 179. A single unreliable writer, Godfrey of Viterbo (in J. M. Watterich, *Pontif. Roman. Vitae*), is authority for the statement that Lucius II. perished in an attempt to storm the Capitol. See Jaffé-Wittenbach, *Regesta pontif. Roman.* (1885-1888); J. Langen, *Geschichte der römischen Kirche von Gregor VII. bis Innocenz III.* (Bonn, 1893); F. Gregorovius, *Rome in the Middle Ages*, vol. 4, trans. by Mrs G. W. Hamilton (London, 1896).

LUCIUS III. (Ubaldo Allucingoli), pope from the 1st of September 1181 to the 25th of November 1185, a native of Lucca and a Cistercian monk, named cardinal-priest of Sta Prassede by Innocent II. and cardinal-bishop of Ostia and Velletri by Adrian IV., succeeded Alexander III. He lived at Rome from November 1181 to March 1182, but dissensions in the city compelled him to pass the remainder of his pontificate in exile, mainly at Velletri, Anagni and Verona. He disputed with the emperor Frederick I. the disposal of the territories of the Countess Matilda. In November 1184 he held a synod at Verona which condemned the Cathari, Paterines, Waldensians and Arnoldists, and anathematized all heretics and their abettors. Lucius died in the midst of preparations for a crusade in answer to appeals of Baldwin IV. of Jerusalem. His successor was Urban III.

His letters are in J. P. Migne, *Patrol. Lat.* vol. 201. Consult J. M. Watterich, *Pontif. Roman. Vitae*, vol. 2 (Leipzig, 1862); and Jaffé-Wattenbach, *Regesta Pontif. Roman.* (1885-1888). See J. Langen, *Geschichte der römischen Kirche von Gregor VII. bis Innocenz III.* (Bonn, 1893); F. Gregorovius, *Rome in the Middle Ages*, vol. 4, trans. by Mrs G. W. Hamilton (London, 1896); P. Scheffer-Boichorst, "Zu den mathildinischen Schenkungen," in *Mittheilungen des österreichen Instituts* (1888).

(C. H. HA.)

LUCK, a term for good or bad fortune, the unforeseen or unrecognized causes which bring success or failure in any enterprise, particularly used of the result of chances in games of skill or chance (see PROBABILITY). The word does not occur in English before the 16th century. It was taken from the Low Ger. *luk*, a shortened form of *geluk*, cf. Modern Ger. *Glück*, happiness, good fortune. The *New English Dictionary* considers the word to have been introduced from the Low Countries as a gambling term. The ultimate origin is doubtful; it has been connected with the German *gelingen*, to succeed (cf. *Druck*, pressure, from *dringen*), or with *locken*, to entice.

At Eden Hall in Cumberland, the seat of the Musgrave family, has been long preserved a vessel known as "the luck," supposed to be of Venetian or Byzantine make, and dating from the 10th century. It is a chalice of enamelled glass, and on its safe preservation the fortunes of the Musgrave family are supposed to depend, in accordance with the rhyme:—

"Should this cup either break or fall,
Farewell the luck of Edenhall."

LÜCKE, GOTTFRIED CHRISTIAN FRIEDRICH (1791-1855), German theologian, was born on the 24th of August 1791, at Egeln near Magdeburg, where his father was a merchant. He studied theology at Halle and Göttingen. In 1813 he became *repetent* at Göttingen, and in 1814 he received the degree of doctor in philosophy from Halle; in 1816 he removed to Berlin, where he became licentiate in theology, and qualified as *privat-docent*. He soon became intimate with Schleiermacher and de Wette, and was associated with them in 1819 in the redaction of the *Theologische Zeitschrift*. Meanwhile his lectures and publications (among the latter a *Grundriss der Neutestamentlichen Hermeneutik*, 1816) had brought him into considerable repute, and he was appointed professor extraordinarius in the new university of Bonn in the spring of 1818; in the following autumn he became professor ordinarius. From Bonn, where he had J. C. W. Augusti (1772-1841), J. K. L. Gieseler, and Karl Immanuel Nitzsch for colleagues, he was called in 1827 to Göttingen to succeed K. F. Stäudlin (1761-1826). In that year he helped to found the *Theologische Studien und Kritiken*, the chief organ of the "mediation" theology (*Vermittelungstheologie*). At Göttingen he remained, declining all further calls elsewhere, as to Erlangen, Kiel, Halle, Tübingen, Jena and Leipzig, until his death, which occurred on the 4th of February 1855.

> Lücke, who was one of the most learned, many-sided and influential of the so-called "mediation" school of evangelical theologians (*Vermittelungstheologie*), is now chiefly known by his *Kommentar über die Schriften d. Evangelisten Johannes* (4 vols., 1820-1832); it has since passed through two new and improved editions (the last volume of the 3rd edition by E. Bertheau, 1856). He is an intelligent maintainer of the Johannine authorship of the Fourth Gospel; in connexion with this thesis he was one of the first to argue for the early date and non-apostolic authorship of the Apocalypse. His *Einleitung in die Offenbarung Johannis* was published in 1832 (2nd ed., 1848-1852). He also published a *Synopsis Evangeliorum*, conjointly with W. M. L. de Wette (1818, 2nd ed., 1840). See Herzog-Hauck, *Realencyklopädie*.

LUCKENWALDE, a town in the Prussian province of Brandenburg, on the Nuthe, 30 m. S. of Berlin, on the main line to Dresden and Leipzig. Pop. (1905) 22,263. Its cloth and wool manufactories are among the most extensive in Prussia. Among its other industries are cotton printing and dye works, brewing, and the making of metal and bronze goods.

The site of Luckenwalde was occupied in the 12th century by a Cistercian monastery, but the village did not spring up till the reign of Frederick the Great. It was made a town in 1808.

LUCKNOW, a city, district and division of British India. The city was the capital of Oudh from 1775 until it was merged in the United Provinces in 1901. Pop. (1901) 264,049. It lies mainly on the right bank of the winding river Gumti, which is crossed by two railway and three road bridges. It contains the Canning college (1864), with an Oriental department, and La Martinière college, where about 100 boys are educated, the institution being in part supported by an endowment left by General Claude Martin in 1800. There are native manufactures of gold and silver brocade, muslins, embroidery, brass and copper wares, pottery and moulding in clay. There are also important European industrial establishments, such as iron-works and paper-mills. Lucknow is the centre of the Oudh and Rohilkhand railway system, with large workshops. Lines radiate to Cawnpore, Bareilly, Gonda, Fyzabad and Rae Bareli. Lucknow is the headquarters of the 8th division of the northern army. The cantonments are situated 3 m. E. of the city.

Lucknow is chiefly notable in the history of British India as the capital of the nawabs who had dealings with Warren Hastings, and their successors the kings of Oudh, whose deposition by Lord Dalhousie was one of the chief causes of the Mutiny. Amongst the events of the Mutiny the defence of the residency of Lucknow comes only second in historic interest to the massacre at Cawnpore itself. For the two sieges, see Indian Mutiny. The name of the residency is now applied not only to the residency itself, but to the whole of the outbuildings and entrenchments in which Sir Henry Lawrence concentrated his small force. These entrenchments covered almost 60 acres of ground, and consisted of a number of detached houses, public edifices, outhouses and casual buildings, netted together, and welded by ditches, parapets, stockades and batteries into one connected whole. On the summit of the plateau stands the residency proper, the official residence of the chief commissioner, a lofty building three storeys high, with a fine portico. Near the residency comes the banqueting hall, and beyond the Baillie Guardgate lie the ruins of the surgeon's house, where Sir Henry Lawrence died of a shell-wound, and where the ladies of the garrison were sheltered in underground rooms. Round the line of the entrenchments are pillars marked with the name of the various "posts" into which the garrison was distributed. The most dangerous of these was the Cawnpore battery post, where the stockade was directly exposed to the enemy's fire. The mutineers had rifles fixed in rests in the house opposite, and swept the road that led through the residency enclosure at this point. Close to the residency is the Lawrence Memorial, an artificial mound 30 ft. high crowned by a marble cross.

Among the other buildings of interest in Lucknow is the Imambara, which is one of the largest rooms in the world (162 ft.

by 54), having an arched roof without supports. This room was built by the Nawab Asaf-ud-dowlah in 1784, to afford relief to the famine-stricken people. The many monuments of his reign include his country palace of Bibiapur, outside the city. Among later bulldings are the two palaces of Chhattar Manzil, erected for the wives of Ghazi-ud-din Haidar (1814), the remains of the Farhat Baksh, dating from the previous reign, and adjoining the greater Chhattar Manzil, the observatory (now a bank) of Nasir-ud-din Haidar (1827), the imambara or mausoleum and the unfinished great mosque (Jama Masjid) of Mahommed Ali Shah (1837), and the huge debased Kaisar Bagh, the palace of Wajid Ali Shah (1847-1856).

The District of Lucknow lies on both sides of the river Gumti, and has an area of 967 sq. m. Its general aspect is that of an open champaign, well studded with villages, finely wooded and in parts most fertile and highly cultivated. In the vicinity of rivers, however, stretch extensive barren sandy tracts (*bhúr*), and there are many wastes of saline efflorescence (*usár*). The country is an almost dead level, the average slope, which is from N.W. to S.E., being less than a foot per mile. The principal rivers are the Gumti and the Sai with their tributaries. The population in 1901 was 793,241, showing an increase of 2.5% in the preceding decade.

The Division of Lucknow contains the western half of the old province of Oudh. It comprises the six districts of Lucknow, Unao, Sitapur, Rae Bareli, Hardoi and Kheri. Its area is 12,051 sq. m. and its population in 1901 was 5,977,086, showing an increase of 2.06% in the decade.

See *Lucknow District Gazetteer* (Allahabad, 1904). For a fuller description of the city see G. W. Forrest, *Cities of India* (1903).

LUÇON, a town of western France, in the department of Vendée, 23 m. S.E. of La Roche-sur-Yon, on the railway from Nantes to Bordeaux, and on the canal of Luçon (9 m. long), which affords communication with the sea in the Bay of Aiguillon. Pop. (1906) 6163. Between Luçon and the sea stretch marshy plains, the bed of the former gulf, partly drained by numerous canals, and in the reclaimed parts yielding excellent pasturage, while in other parts are productive salt-marshes, and ponds for the rearing of mussels and other shell-fish. Luçon is the seat of a bishopric, established in 1317, and held by Richelieu from 1607 to 1624. The cathedral, partly of the 12th-century and partly of later periods, was originally an abbey church. The façade and the clock tower date from about 1700, and the tower is surmounted by a crocketed spire rising 275 ft. above the ground, attributed to the architect François Leduc of Tuscany. The cloisters are of the late 15th century. Adjacent is the bishop's palace, possessing a large theological library and Titian's "Disciples of Emmaus," and there is a fine public garden. A communal college and an ecclesiastical seminary are among the public institutions. During the Vendean wars, Luçon was the scene of several conflicts, notably in 1793.

LUCRE (Lat. *lucrum*, gain; the Indo-European root is seen in Gr. ἀπολάυειν, to enjoy, and in Ger. *Lohn*, wages), a term now only used in the disparaging sense of unworthy profit, or money that is the object of greed, especially in the expression "filthy lucre" (1 Tim. iii. 3). In the adjective "lucrative," profitable, there is, however, no sense of disparagement. In Scots law the term "lucrative succession" (*lucrativa acquisitio*) is used of the taking by an heir, during the lifetime of his ancestor, of a free grant of any part of the heritable property.

LUCRETIA, a Roman lady, wife of Lucius Tarquinius Collatinus, distinguished for her beauty and domestic virtues. Having been outraged by Sextus Tarquinius, one of the sons of Tarquinius Superbus, she informed her father and her husband, and, having exacted an oath of vengeance from them, stabbed herself to death. Lucius Junius Brutus, her husband's cousin, put himself at the head of the people, drove out the Tarquins, and established a republic. The accounts of this tradition in later writers present many points of divergence.

Livy i. 57-59; Dion. Halic. iv. 64-67, 70, 82; Ovid, *Fasti*, ii. 721-852; Dio Cassius, frag. 11 (Bekker); G. Cornewall Lewis, *Credibility of Early Roman History*, i.

LUCRETILIS MONS, a mountain of the Sabine territory, mentioned by Horace (*Od.* i. 17, 1) as visible from his Sabine farm, and probably identical with the "Mons Lucretius" mentioned in the *Liber Pontificalis* (ed. Duchesne, i. 183), which speaks of "possessio in territorio Sabinensi quae cognominatur ad duas casas sub monte Lucretio" in the time of Constantine. The name "ad duas casas" is supposed to survive in the chapel of the Madonna della Casa near Rocca Giovane, and the Mons Lucretilis is generally (and rightly) identified with Monte Gennaro, a limestone peak 4160 ft. high, which forms a prominent feature in the view N.E. of Rome. Excavations on the supposed site of Horace's farm were begun by Professor Pasqui in September 1909.

(T. As.)

LUCRETIUS (Titus Lucretius Carus) (*c.* 98-55 B.C.), the great Latin didactic poet. Our sole information concerning his life is found in the brief summary of Jerome, written more than four centuries after the poet's death. Jerome followed, often carelessly, the accounts contained in the lost work of Suetonius *De Viris Illustribus*, written about two centuries after the death of Lucretius; and, although it is likely that Suetonius used the information transmitted by earlier grammarians, there is nothing to guide us to the original sources. According to this account the poet was born in 95 B.C.; he became mad in consequence of the administration of a love-philtre; and after composing several books in his lucid intervals, which were subsequently corrected by Cicero, he died by his own hand in the forty-fourth year of his age. Donatus states in his life of Virgil, a work also based on the lost work of Suetonius, that Lucretius died on the same day on which Virgil assumed the *toga virilis*, that is, in the seventeenth year of Virgil's life, and on the very day on which he was born, and adds that the consuls were the same, that is Cn. Pompeius Magnus and M. Licinius Crassus, consuls in 70 and again in 55. The statements cannot be perfectly reconciled; but we may say with certainty that Lucretius was born between 98 and 95 B.C., and died in 55 or 54. A single mention of his poem, the *De rerum natura* (which from the condition in which it has reached us may be assumed to have been published posthumously) in a letter of Cicero's to his brother Quintus, written early in 54 B.C., confirms the date given by Donatus as that of the poet's death. The statements of Jerome have been questioned or disbelieved on the ground of their intrinsic improbability. They have been regarded as a fiction invented later by the enemies of Epicureanism, with the view of discrediting the most powerful work ever produced by any disciple of that sect. It is more in conformity with ancient credulity than with modern science to attribute a permanent tendency to derangement to the accidental administration of any drug, however potent. A work characterized by such strength, consistency and continuity of thought is not likely to have been composed "in the intervals of madness" as Jerome says. Donatus, in mentioning the poet's death, gives no hint of the act of suicide. The poets of the Augustan age, who were deeply interested both in his philosophy and in his poetry, are entirely silent about the tragical story of his life. Cicero, by his professed antagonism to the doctrines of Epicurus, by his inadequate appreciation of Lucretius himself and by the indifference which he shows to other contemporary poets, seems to have been neither fitted for the task of correcting the unfinished work of a writer whose genius was so distinct from his own, nor likely to have cordially undertaken such a task.

Yet these considerations do not lead to the absolute rejection of the story. The evidence afforded by the poem rather leads to the conclusion that the tradition contains some germ of fact. It is remarkable that in more than one passage of his poem Lucretius writes with extraordinary vividness of the impression produced both by dreams and by waking visions. It is true that the philosophy of Epicurus put great stress on these, as affording the explanation of the origin of supernatural beliefs. But the insistence with which Lucretius returns to the subject, and the horror with which he recalls the effects of such abnormal phenomena, suggest that he himself may have been liable to such hallucinations, which are said to be consistent with perfect sanity, though they may be the precursors either of madness or of a state of despair and melancholy. Other passages, where he describes himself as ever engaged, even in his dreams, on his task of inquiry and composition, produce the impression of an unrelieved strain of mind and feeling, which may have ended in some extreme reaction of spirit, or in some failure of intellectual power, that may have led him to commit suicide. But the strongest confirmation of the tradition is the unfinished condition in which the poem has reached us. The subject appears indeed to have been fully treated in accordance with the plan sketched out in the introduction to the first book. But that book is the only one which is finished in style and in the arrangement of its matter. In all the others, and especially in the last three, the continuity of the argument is frequently broken by passages which must have been inserted after the first draft of the arguments was written out. Thus, for instance, in his account of the transition from savage to civilized life, he assumes at v. 1011 the discovery of the use of skins, fire, &c., and the first beginning of civil society, and proceeds at 1028 to explain the origin of language, and then again returns, from 1090 to 1160, to speculate upon the first use of fire and the earliest stages of political life. These breaks in continuity show what might also be inferred from frequent repetitions of lines which have appeared earlier in the poem, and from the rough workmanship of passages in the later books, that the poem could not have received the final revision of the author. Nor is there any great difficulty in believing that Cicero edited it; the word "emendavit," need not mean more than what we call "preparing for press."

From the absence of any claim on the part of any other district of Italy to the honour of having given birth to Lucretius it is inferred that he was of purely Roman origin. No writer certainly is more purely Roman in personal character and in strength of understanding. His silence on the subject of Roman greatness and glory as contrasted with the prominence of these subjects in the poetry of men of provincial birth such as Ennius, Virgil and Horace, may be explained by the principle that familiarity had made the subject one of less wonder and novelty to him. The Lucretian gens to which he belonged was one of the oldest of the great Roman houses, nor do we hear of the name, as we do of other great family names, as being diffused over other parts of Italy, or as designating men of obscure or servile origin. It may well be assumed that Lucretius was a member of the Roman aristocracy, belonging either to a senatorian or to one of the great equestrian families. If the Roman aristocracy of his time had lost much of the virtue and of the governing qualities of their ancestors, they showed in the last years before the establishment of monarchy a taste for intellectual culture which might have made Rome as great in literature as in arms and law. A new taste for philosophy had developed among members of the governing class during the youth of Lucretius, and eminent Greek teachers of the Epicurean sect settled at Rome at the same time, and lived on terms of intimacy with them. The inference that Lucretius belonged to this class is confirmed by the tone in which he addresses Gaius Memmius, a man of an eminent senatorian family, to whom the poem is dedicated. His tone is quite unlike that in which Virgil or even Horace addresses Maecenas. He addresses him as an equal; he expresses sympathy with the prominent part he played in public life, and admiration for his varied accomplishments, but on his own subject claims to speak to him with authority.

Although our conception of the poet's life is necessarily vague and meagre, yet his personal force is so remarkable and so vividly impressed on his poem, that we seem able to form a consistent idea of his qualities and characteristics. We know, for example, that the choice of a contemplative life was not the result of indifference to the fate of the world, or of any natural coldness or even calmness of temperament. In the opening lines of the second and third books we can mark the recoil of a humane and sensitive spirit from the horrors of the reign of terror which he witnessed in his youth, and from the anarchy and confusion which prevailed at Rome during his later years. We may also infer that he had not been through his whole career so much estranged from the social life of his day as he seems to have been in his later years. Passages in his poem attest his familiarity with the pomp and luxury of city life, with the attractions of the public games and with the pageantry of great military spectacles. But much the greater mass of the illustrations of his philosophy indicate that, while engaged on his poem he must have passed much of his time in the open air, exercising at once the keen observation of a naturalist and the contemplative vision of a poet. He seems to have found a pleasure, more congenial to the modern than to the ancient temperament, in ascending mountains or wandering among their solitudes (vi. 469, iv. 575). References to companionship in these wanderings, and the well-known description of the charm of a rustic meal (ii. 29) speak of kindly sociality rather than of any austere separation from his fellows.

Other expressions in his poem (*e.g.* iii. 10, &c.) imply that he was also a student of books. Foremost among these were the writings of Epicurus; but he had also an intimate knowledge of the philosophical poem of Empedocles, and at least an acquaintance with the works of Democritus, Anaxagoras, Heraclitus, Plato and the Stoical writers. Of other Greek prose writers he knew Thucydides and Hippocrates; while of the poets he expresses in more than one passage the highest admiration of Homer, whom he imitated in several places. Next to Homer Euripides is most frequently reproduced by him. But his poetical sympathy was not limited to the poets of Greece. For his own countryman Ennius he expresses an affectionate admiration; and he imitates his language, his rhythm and his manner in many places. The fragments of the old tragedian Pacuvius and of the satirist Lucilius show that Lucretius had made use of their expressions and materials. In his studies he was attracted by the older writers, both Greek and Roman, in whose masculine temperament and understanding he

recognized an affinity with his own.

His devotion to Epicurus seems at first sight more difficult to explain than his enthusiasm for Empedocles or Ennius. Probably he found in his calmness of temperament, even in his want of imagination, a sense of rest and of exemption from the disturbing influences of life; while in his physical philosophy he found both an answer to the questions which perplexed him and an inexhaustible stimulus to his intellectual curiosity. The combative energy, the sense of superiority, the spirit of satire, characteristic of him as a Roman, unite with his loyalty to Epicurus to render him not only polemical but intolerant and contemptuous in his tone toward the great antagonists of his system, the Stoics, whom, while constantly referring to them, he does not condescend even to name. With his admiration of the genius of others he combines a strong sense of his own power. He is quite conscious of the great importance and of the difficulty of his task; but he feels his own ability to cope with it.

It is more difficult to infer the moral than the intellectual characteristics of a great writer from the personal impress left by him on his work. Yet it is not too much to say that there is no work in any literature that produces a profounder impression of sincerity. No writer shows a juster scorn of all mere rhetoric and exaggeration. No one shows truer courage, not marred by irreverence, in confronting the great problems of human destiny, or greater strength in triumphing over human weakness. No one shows a truer humanity and a more tender sympathy with natural sorrow.

The peculiarity of the poem of Lucretius, that which makes it unique in literature, is that it is a reasoned system of philosophy, written in verse. The prosaic title *De Rerum Natura*, a translation of the Gr. περὶ φύσεως, implies the subordination of the artistic to a speculative motive. As in the case of nearly all the great works of Roman literary genius, the form of the poem was borrowed from the Greeks. The rise of speculative philosophy in Greece was coincident with the beginning of prose composition, and many of the earliest philosophers wrote in the prose of the Ionic dialect; others, however, and especially the writers of the Greek colonies in Italy and Sicily, expounded their systems in continuous poems composed in the epic hexameter. Most famous in connexion with this kind of poetry are Xenophanes and Parmenides, the Eleatics and Empedocles of Agrigentum. The last was less important as a philosopher, but greater than the others both as a poet and a physicist. On both of these grounds he had a greater attraction to Lucretius. The fragments of the poem of Empedocles show that the Roman poet regarded that work as his model. In accordance with this model he has given to his own poem the form of a personal address, he has developed his argument systematically, and has applied the sustained impetus of epic poetry to the treatment of some of the driest and abstrusest topics. Many ideas and expressions of the Sicilian have been reproduced by the Roman poet; and the same tone of impassioned solemnity and melancholy seems to have pervaded both works. But Lucretius, if less original as a thinker, was probably a much greater poet than Empedocles. What chiefly distinguishes him from his Greek prototypes is that his purpose is rather ethical than purely speculative; the zeal of a teacher and reformer is more strong in him than even the intellectual passion of a thinker. His speculative ideas, his moral teaching and his poetical power are indeed interdependent on one another, and this interdependence is what mainly constitutes their power and interest. But of the three claims which he makes to immortality, the importance of his subject, his desire to liberate the mind from the bonds of superstition and the charm and lucidity of his poetry—that which he himself regarded as supreme was the second. The main idea of the poem is the irreconcilable opposition between the truth of the laws of nature and the falsehood of the old superstitions. But, further, the happiness and the dignity of life are regarded by him as absolutely dependent on the acceptance of the true and the rejection of the false doctrine. In the Epicurean system of philosophy he believed that he had found the weapons by which this war of liberation could be most effectually waged. Following Epicurus he sets before himself the aim of finally crushing that fear of the gods and that fear of death resulting from it which he regards as the source of all the human ills. Incidentally he desires also to purify the heart from other violent passions which corrupt it and mar its peace. But the source even of these—the passions of ambition and avarice—he finds in the fear of death; and that fear he resolves into the fear of eternal punishment after death.

The selection of his subject and the order in which it is treated are determined by this motive. Although the title of the poem implies that it is a treatise on the “whole nature of things,” the aim of Lucretius is to treat only those branches of science which are necessary to clear the mind from the fear of the gods and the terrors of a future state. In the two earliest books, accordingly, he lays down and largely illustrates the first principles of being with the view of showing that the world is not governed by capricious agency, but has come into existence, continues in existence, and will ultimately pass away in accordance with the primary conditions of the elemental atoms which, along with empty space, are the only eternal and immutable substances. These atoms are themselves infinite in number but limited in their varieties, and by their ceaseless movement and combinations during infinite time and through infinite space the whole process of creation is maintained. In the third book he applies the principles of the atomic philosophy to explain the nature of the mind and vital principle, with the view of showing that the soul perishes with the body. In the fourth book he discusses the Epicurean doctrine of the images, which are cast from all bodies, and which act either on the senses or immediately on the mind, in dreams or waking visions, as affording the explanation of the belief in the continued existence of the spirits of the departed. The fifth book, which has the most general interest, professes to explain the process by which the earth, the sea, the sky, the sun, moon and stars, were formed, the origin of life, and the gradual advance of man from the most savage to the most civilized condition. All these topics are treated with the view of showing that the world is not itself divine nor directed by divine agency. The sixth book is devoted to the explanation, in accordance with natural causes, of some of the more abnormal phenomena, such as thunderstorms, volcanoes, earthquakes, &c., which are special causes of supernatural terrors.

The consecutive study of the argument produces on most readers a mixed feeling of dissatisfaction and admiration. They are repelled by the dryness of much of the matter, the unsuitableness of many of the topics discussed for poetic treatment, the arbitrary assumption of premises, the entire failure to establish the connexion between the concrete phenomena which the author professes to explain and these assumptions, and the erroneousness of many of the doctrines which are stated with dogmatic confidence. On the other hand, they are constantly impressed by his power of reasoning both deductively and inductively, by the subtlety and fertility of invention with which he applies analogies, by the clearness and keenness of his observation, by the fulness of matter with which his mind is stored, and by the consecutive force, the precision and distinctness of his style, when employed in the processes of scientific exposition. The first two books enable us better than anything else in ancient literature to appreciate the boldness and, on the whole, the reasonableness of the ancient mind in forming hypotheses on great matters that still occupy the investigations of physical science. The third and fourth books give evidence of acuteness in psychological analysis; the fourth and sixth of the most active and varied observation of natural phenomena; the fifth of original insight and strong common sense in conceiving the origin of society and the progressive advance of man to civilization. But the chief value of Lucretius as a thinker lies in his firm grasp of speculative ideas, and in his application of them to the interpretation of human life and nature. All phenomena, moral as well as material, are contemplated by him in their relation to one great organic whole, which he acknowledges under the name of “Natura daedala rerum,” and the most beneficent manifestations of which he seems to symbolize and almost to deify in the “Alma Venus,” whom, in apparent contradiction to his denial of a divine interference with human affairs, he invokes with prayer in the opening lines of the poem. In this conception of nature are united the conceptions of law and order, of ever-changing life and interdependence, of immensity, individuality, and all-pervading subtlety, under which the universe is apprehended both by his intelligence and his imagination.

Nothing can be more unlike the religious and moral attitude of Lucretius than the old popular conception of him as an atheist and a preacher of the doctrine of pleasure. It is true that he denies the doctrines of a supernatural government of the world and of a future life. But his arguments against the first are really only valid against the limited and unworthy conceptions of divine agency involved in the ancient religions; his denial of the second is prompted by his vital realization of all that is meant by the arbitrary infliction of eternal torment after death. His war with the popular beliefs of his time is waged, not in the interests of licence, but in vindication of the sanctity of human feeling. The cardinal line of the poem,

is elicited from him as his protest against the sacrifice of Iphigenia by her father. But in his very denial of a cruel, limited and capricious agency of the gods, and in his imaginative recognition of an orderly, all-pervading, all-regulating power, we find at least a nearer approach to the higher conceptions of modern theism than in any of the other imaginative conceptions of ancient poetry and art. But his conception even of the ancient gods and of their indirect influence on human life is more worthy than the popular one. He conceives of them as living a life of eternal peace and exemption from passion, in a world of their own; and the highest ideal of man is, through the exercise of his reason, to realize an image of this life. Although they are conceived of as unconcerned with the interest of our world, yet influences are supposed to emanate from them which the human heart is capable of receiving and assimilating. The effect of unworthy conceptions of the divine nature is that they render a man incapable of visiting the temples of the gods in a calm spirit, or of receiving the emanations that “announce the divine peace” in peaceful tranquillity. The supposed “atheism” of Lucretius proceeds from a more deeply reverential spirit than that of the majority of professed believers in all times.

His moral attitude is also far removed from that of ordinary ancient Epicureanism or of modern materialism. Though he acknowledges pleasure to be the law of life, yet he is far from regarding its attainment as the end of life. What man needs is not enjoyment, but “peace and a pure heart.” The victory to be won by man is the triumph over fear, ambition, passion, luxury. With the conquest over these nature herself supplies all that is needed for happiness. Self-control and renunciation are the lessons which he preaches.

It has been doubted whether Cicero,[1] in his short criticism in the letter already referred to, concedes to Lucretius both the gifts of genius and the accomplishment of art or only one of them. Readers of a later time, who could compare his work with the finished works of the Augustan age, would certainly disparage his art rather than his power. But with Cicero it was different. He greatly admired, or professed to admire, the genius of the early Roman poets, while he shows indifference to the poetical genius of his younger contemporaries. Yet he could not have been insensible to the immense superiority in rhythmical smoothness which the hexameter of Lucretius has over that of Ennius and Lucilius. And no reader of Lucretius can doubt that he attached the greatest importance to artistic execution, and that he took a great pleasure, not only in “the long roll of his hexameter,” but also in producing the effects of alliteration, assonance, &c., which are so marked a peculiarity in the style of Plautus and the earlier Roman poets. He allows his taste for these tricks of style to degenerate into mannerism. And this is the only drawback to the impression of absolute spontaneity which his style produces. He was unfortunate in living before the natural rudeness of Latin art had been successfully grappled with. His only important precursors in serious poetry were Ennius and Lucilius, and, though he derived from the first of these an impulse to shape the Latin tongue into a fitting vehicle for the expression of elevated emotion and imaginative conception, he could find in neither a guide to follow in the task he set before himself. The difficulty and novelty of his task enhances our sense of his power. His finest passages are thus characterized by a freshness of feeling and enthusiasm of discovery. But the result of these conditions and of his own inadequate conception of the proper limits of his art is that his best poetry is clogged with a great mass of alien matter, which no treatment in the world could have made poetically endurable.

(W. Y. S.)

Authorities.—The two most ancient manuscripts of Lucretius, O and Q, are both at Leiden, one being a folio (*oblongus*) and the other a quarto (*quadratus*). Upon these alone the modern texts are founded. The scientific editing of the text began with C. C. Lachmann (1852) whose work still holds the field. The most important commentary is that of H. A. J. Munro (4th ed., 1886) with a prose translation. For the earlier editions it is sufficient to refer to the account in Munro’s *Introduction*, vol. i. pp. 3 sqq. Giussani’s complete edition (with Italian notes, 1896) and R. Heinze’s edition of book iii. (1897) are also of value. So too are A. Brieger’s numerous contributions in German periodicals and his text in the Teubner series (2nd ed., 1899).

The philosophy of Lucretius has been much studied in recent times. Amongst special treatises may be mentioned K. H. Usener’s *Epicurea* (1887); J. Woltjer’s *Lucretii philosophia cum fontibus comparata* (1877); John Masson’s *Atomic Theory of Lucretius* (1884) and *Lucretius: Epicurean and Poet* (1909); and several papers and treatises by Brieger and Giussani.

On the characteristics of the poet as a whole, C. Martha’s *Le Poème de Lucrèce* (4th ed., Paris, 1885) and W. Y. Sellar in chaps. xi. sqq. of the *Roman Poets of the Republic*, may be consulted. There are useful bibliographies in W. S. Teuffel’s *History of Roman Literature* (English trans. by G. C. W. Warr) and Martin v. Schanz’s *Geschichte der römischen Litteratur*.

The following translations into English verse are known: T. Creech (1683), J. M. Good (1805), T. Busby (1813), C. F. Johnson (New York, 1872), T. C. Baring (1884). There is also a translation by Cyril Bailey (Oxford, 1910).

1 *Ad Q. Fratr.* ii. 9 (11), 13. Both sense and words have been much disputed. The general sense is probably that given by the following restoration, “Lucretii poemata, ut scribis, ita sunt multis hominibus ingenii multae etiam (MSS. tamen) artis, sed cum *ad umbilicum* (omitted in MSS.) veneris, virum te putabo, si Sallustii Empedoclea legeris, hominem non putabo.” This would concede Lucretius both genius and art, but imply at the same time that he was not easy reading.

LUCRINUS LACUS, or Lucrine Lake, a lake of Campania, Italy, about ½ m. to the N. of Lake Avernus, and only separated from the sea (Gulf of Pozzuoli) by a narrow strip of land, traversed by the coast road, Via Herculanea, which runs on an embankment, the construction of which was traditionally attributed to Heracles in Strabo’s time—and the modern railway. Its size has been much reduced by the rise of the crater of the Montenuovo in 1538. Its greatest depth is about 15 ft. In Roman days its fisheries were important and were let out by the state to contractors. Its oyster-beds were, as at the present day, renowned; their foundation is attributed to one Sergius Orata, about 100 B.C. It was also in favour as a resort for pleasure excursions from Baiae (cf. Martial i. 63), and its banks were covered with villas, of which the best known was Cicero’s Academia, on the E. bank. The remnants of this villa, with the village of Tripergola, disappeared in 1538.

See J. Beloch, *Campanien*, ed. 2 (Breslau, 1890), 172.

LUCULLUS, the name of a Roman plebeian family of the Licinian *gens*. By far the most famous of its members was Lucius Licinius Lucullus (*c.* 110-56), surnamed Ponticus from his victories in Asia Minor over Mithradates VI. of Pontus. His father, of the same name, had held an important military command in Sicily, but on his return to Rome he was prosecuted on a charge of bribery and condemned to exile. His mother was Caecilia, of the family of the Metelli, and sister of Quintus Caecilius Metellus Numidicus. Early in life he attached himself to the party of Sulla, and to that party he remained constant. He attracted Sulla’s notice in the Social War (90) and in 88, when Sulla was appointed to the command of the war against

Mithradates, accompanied him as quaestor to Greece and Asia Minor. While Sulla was besieging Athens, Lucullus raised a fleet and drove Mithradates out of the Mediterranean. He won a brilliant victory off Tenedos, and had he been more of a patriot and less of a party man he might have ended a perilous war. In 84 peace was concluded with Mithradates. Sulla returned to Rome, while Lucullus remained in Asia, and by wise and generous financial reforms laid the foundation of the prosperity of the province. The result of his policy was that he became extremely popular with the provincials, but offended many of the *publicani*, a powerful class which farmed the public revenue. In 80 he returned to Rome as curule aedile, in which capacity he exhibited games of exceptional magnificence. Soon afterwards (77) he was elected praetor, and was next appointed to the province of Africa, where he again won a good name as a just and considerate governor. In 74 he became consul, and went to Asia at the head of about 30,000 foot and 2000 horse, to defend the province of Bithynia against Mithradates, who was besieging his colleague, Marcus Aurelius Cotta, in Chalcedon on the Propontis. Mithradates was forced to retire along the sea-coast till he halted before the strong city of Cyzicus, which he besieged. Lucullus, however, cut off his communications on the land side, and, aided by bad weather, forced him to raise the siege. In the autumn of 73 Lucullus marched to Cabeira or Neocaesarea, where the king had gone into winter quarters with a vague hope that his son-in-law, Tigranes, king of Armenia, and possibly even the Parthians, might come to his aid. Although the forces of Mithradates were far superior in numbers, his troops were no match for the Roman legionaries. A large detachment of his army having been cut up by one of Lucullus's lieutenant-generals, the king decided on instant retreat. The retreat soon became a disorderly flight, Mithradates himself escaping with difficulty into Lesser Armenia.

Thus Pontus, with the exception of some of the maritime cities, such as Sinope, Heraclea and Amisus, became Roman territory. Two years were occupied in the capture of these strongholds, while Lucullus busied himself with a general reform of the administration of the province of Asia. His next step was to demand the surrender of Mithradates and to threaten Tigranes with war in the event of refusal. In the spring of 69, at the head of only two legions, he marched through Sophene, the south-western portion of Armenia, crossed the Tigris, and pushed on to the newly-built royal city, Tigranocerta, situated on one of the affluents of that river. A motley host, made up out of the tribes bordering on the Black Sea and the Caspian, hovered round his small army, but failed to hinder him from laying siege to the town. Lucullus showed consummate military capacity, contriving to maintain the siege and at the same time to give battle to the enemy's vastly superior forces. There might now have been peace but for the interference of Mithradates, who pressed Tigranes to renew the war and to seek the aid and alliance of Parthia. The Parthian king, however, preferred a treaty with Rome to a treaty with Armenia, and desired simply to have the Euphrates recognized as his western boundary. Mithradates next appealed to the national spirit of the peoples of the East generally, and endeavoured to rouse them to a united effort. The position of Lucullus was critical. The home government was for recalling him, and his army was disaffected. Nevertheless, though continually harassed by the enemy, he persisted in marching northwards from Tigranocerta over the high table-land of central Armenia, in the hope of reaching Artaxata on the Araxes. But the open mutiny of his troops compelled him to recross the Tigris into the Mesopotamian valley. Here, on a dark tempestuous night, he surprised and stormed Nisibis, the capital of the Armenian district of Mesopotamia, and in this city, which yielded him a rich booty, he found satisfactory winter quarters. Meantime Mithradates was again in Pontus, and in a disastrous engagement at Ziela the Roman camp was taken and the army slaughtered to a man. Lucullus was obliged to retreat into Asia Minor, leaving Tigranes and Mithradates masters of Pontus and Cappadocia. The work of eight years of war was undone. In 66 Lucullus was superseded by Pompey. He had fairly earned the honour of a triumph, but his powerful enemies at Rome and charges of maladministration, to which his immense wealth gave colour, caused it to be deferred till 63. From this time, with the exception of occasional public appearances, he gave himself up to elegant luxury, with which he combined a sort of dilettante pursuit of philosophy, literature and art. As a general he does not seem to have possessed the entire confidence of his troops, owing probably to his natural hauteur and the strict discipline which he imposed on them. The same causes made him unpopular with the Roman capitalists, whose sole object was the accumulation of enormous fortunes by farming the revenue of the provinces.

Among the Roman nobles who revelled in the newly acquired riches of the East, Lucullus stood pre-eminent. His park and pleasure grounds near Rome, and the costly and laborious works in his parks and villas at Tusculum, near Naples, earned for him from Pompey (it is said) the title of the "Roman Xerxes." On one of his luxurious entertainments he is said to have spent upwards of £2000. He was a liberal patron of Greek philosophers and men of letters, and he collected a valuable library, to which such men had free access. He himself is said to have been a student of Greek literature, and to have written a history of the Marsian war in Greek, inserting solecisms to show that he was a Roman. He was one of the interlocutors in Cicero's *Academica*, the second book (first edition) of which was called *Lucullus*. Sulla also entrusted him with the revision of his *Memoirs*. The introduction of the cherry-tree from Asia into Europe is attributed to him. It appears that he became mentally feeble some years before his death, and was obliged to surrender the management of his affairs to his brother Marcus. The usual funeral panegyric was pronounced on him in the Forum, and the people would have had him buried by the side of Sulla in the Campus Martius, but at his brother's request he was laid in his splendid villa at Tusculum.

See Plutarch's *Lucullus*; Appian's *Mithridatic War*; the epitomes of the lost books of Livy; and many passages in Cicero. Some allusions will also be found in Dio Cassius, Pliny and Athenaeus. For the Mithradatic wars, see bibliography under MITHRADATES (VI. of Pontus); and generally G. Boissier, *Cicero and his Friends* (Eng: trans. by A. D. Jones, 1897); H. Peter, *Hist. Rom. Reliquiae*, i. p. cclxxxv.; W. Drumann, *Geschichte Roms*, iv. His *Elogium* is given in *C.I.L.* i. 292.

His brother, MARCUS LICINIUS LUCULLUS, was adopted by Marcus Terentius Varro, and was hence known as Marcus Terentius Varro Lucullus. In 82 B.C. he served under Sulla against Marius. In 79 he was curule aedile with his brother, in 77 praetor, in 73 consul with Gaius Cassius Varus. When praetor he forbade the carrying of arms by slaves, and with his colleague in the consulship passed the *lex Terentia Cassia*, to give authority for purchasing corn with the public money and retailing it at a fixed price at Rome. As proconsul in Macedonia he made war with great cruelty against the Dardani and Bessi, and compelled them to acknowledge the supremacy of Rome. Having enjoyed a triumph, he was sent out to the East to settle the affairs of the provinces conquered by his brother. He sided with Cicero during the Catilinarian conspiracy, did his utmost to prevent his banishment, and subsequently supported his claim for the restoration of his house. He was one of the better representatives of the optimates, and enjoyed some reputation as an orator.

See Cicero, *De Domo*, 52; *Pro Tullio*, 8; *In Verrem*, iii. 70, v. 21; *Florus*, iii. 4, 7; Ammianus Marcellinus xxvii. 4, 11; Plutarch, *Sulla*, 27; *Lucullus*, 35, 36, 43; Orelli's *Onomasticon Tullianum*.

LUCUS FERONIAE, an ancient shrine in Etruria. It was visited both by Latins and Sabines even in the time of Tullus Hostilius and was plundered by Hannibal in 211 B.C. It was undoubtedly in the territory of Capena (*q.v.*); but in imperial times it became an independent community receiving a colony of Octavian's veterans (*Colonia Iulia felix Lucoferensis*) and possessing an amphitheatre. Its site has been disputed. Some authorities place it on the Colle Civitucola (but see CAPENA), others at the church of S. Abbondio near Rignano, others (and probably rightly) at Nazzano, which was reached by a branch road from the Via Flaminia, where remains of a circular temple have been found.

See E. Bormann in *Corp. Inscr. Lat.* xi. 569 sqq.; H. Nissen, *Italische Landeskunde*, ii. 369 sqq.

(T. As.)

LUCY, RICHARD DE (d. 1179), called the "loyal," chief justiciar of England, appears in the latter part of Stephen's reign as sheriff and justiciar of the county of Essex. He became, on the accession of Henry II., chief justiciar conjointly with Robert de Beaumont, earl of Leicester; and after the death of the latter (1168) held the office without a colleague for twelve years. The chief servant and intimate of the king he was among the first of the royal party to incur excommunication in the Becket controversy. In 1173 he played an important part in suppressing the rebellion of the English barons, and commanded the royalists at the battle of Fornham. He resigned the justiciarship in 1179, though pressed by the king to continue in office, and retired to Lesues Abbey in Kent, which he had founded and where he died. Lucy's son, Godfrey de Lucy (d. 1204), was bishop of Winchester from 1189 to his death in September 1204; he took a prominent part in public affairs during the reigns of Henry II., Richard I. and John.

See J. H. Round, *Geoffrey de Mandeville* (1892); Sir J. H. Ramsay, *Angevin Empire* (1903); and W. Stubbs, *Constitutional History*, vol. i.

LUCY, SIR THOMAS (1532-1600), the English Warwickshire squire who is traditionally associated with the youth of William Shakespeare, was born on the 24th of April 1532, the son of William Lucy, and was descended, according to Dugdale, from Thurstane de Cherlecote, whose son Walter received the village of Charlecote from Henry de Montfort about 1190. Walter is said to have married into the Anglo-Norman family of Lucy, and his son adopted the mother's surname. Three of Sir Thomas Lucy's ancestors had been sheriffs of Warwickshire and Leicestershire, and on his father's death in 1552 he inherited Sherborne and Hampton Lucy in addition to Charlecote, which was rebuilt for him by John of Padua, known as John Thorpe, about 1558. By his marriage with Joyce Acton he inherited Sutton Park in Worcestershire, and became in 1586 high sheriff of the county. He was knighted in 1565. He is said to have been under the tutorship of John Foxe, who is supposed to have imbued his pupil with the Puritan principles which he displayed as knight of the shire for Warwick in the parliament of 1571 and as sheriff of the county, but as Mrs Carmichael Stopes points out Foxe only left Oxford in 1545, and in 1547 went up to London, so that the connexion must have been short. He often appeared at Stratford-on-Avon as justice of the peace and as commissioner of musters for the county. As justice of the peace he showed great zeal against the Catholics, and took his share in the arrest of Edward Arden in 1583. In 1585 he introduced into parliament a bill for the better preservation of game and grain, and his reputation as a preserver of game gives some colour to the Shakespearian tradition connected with his name. Nicholas Rowe, writing in 1710, told a story that Lucy prosecuted Shakespeare for deer-stealing from Charlecote Park in 1585, and that Shakespeare aggravated the offence by writing a ballad on his prosecutor. The trouble arising from this incident is said to have driven Shakespeare from Stratford to London. The tale was corroborated by Archdeacon Davies of Sapperton, Gloucestershire, who died in 1708. The story is not necessarily falsified by the fact that there was no deer park at Charlecote at the time, since there was a warren, and the term warren legally covers a preserve for other animals than hares or rabbits, roe-deer among others. Shakespeare is generally supposed to have caricatured the local magnate of Stratford in his portrait of Justice Shallow, who made his first appearance in the second part of *Henry IV.*, and a second in the *Merry Wives of Windsor*. Robert Shallow is a justice of the peace in the county of Gloucester and his ancestors have the dozen white luces in their coats, the arms of the Lucys being three luces, while in Dugdale's *Warwickshire* (ed. 1656) there is drawn a coat-of-arms in which these are repeated in each of the four quarters, making twelve in all. There are many considerations which make it unlikely that Shallow represents Lucy, the chief being the noteworthy difference in their circumstances. Lucy died at Charlecote on the 7th of July 1600. His grandson, Sir Thomas Lucy (1585-1640), was a friend of Lord Herbert of Cherbury, and was eulogized by John Davies of Hereford in 1610. The Charlecote estates eventually passed to the Rev. John Hammond through his marriage with Alice Lucy, and in 1789 he adopted the name of Lucy.

For a detailed account of Sir Thomas Lucy, with his son and grandson of the same name, see Mrs C. Carmichael Stopes, *Shakespeare's Warwickshire Contemporaries* (2nd ed., 1907). Cf. also an article by Mrs Stopes in the *Fortnightly Review* (Feb. 1903), entitled "Sir Thomas Lucy not the Original of Justice Shallow," and J. O. Halliwell-Phillipps, *Observations on the Charlecote Traditions* (Brighton, 1887).

LUDDITES, the name given to organized bands of English rioters for the destruction of machinery, who made their first appearance in Nottingham and the neighbouring districts towards the end of 1811. The origin of the name is given in Pellew's *Life of Lord Sidmouth* (iii. 80). In 1779 there lived in a village in Leicestershire a person of weak intellect, called Ned Ludd, who was the butt of the boys of the village. On one occasion Ludd pursued one of his tormentors into a house where were two of the frames used in stocking manufacture, and, not being able to catch the boy, vented his anger on the frames. Afterwards, whenever any frames were broken, it became a common saying that Ludd had done it. The riots arose out of the severe distress caused by the war with France. The leader of the riotous bands took the name of "General Ludd." The riots were specially directed against machinery because of the widespread prejudice that its use produced a scarcity in the demand for labour. Apart from this prejudice, it was inevitable that the economic and social revolution implied in the change from manual labour to work by machinery should give rise to great misery. The riots began with the destruction of stocking and lace frames, and, continuing through the winter and the following spring, spread into Yorkshire, Lancashire, Derbyshire and Leicestershire. They were met by severe repressive legislation, introduced by Lord Liverpool's government, a notable feature in the opposition to which was Lord Byron's speech in the House of Lords. In 1816 the rioting was resumed, caused by the depression which followed the peace of 1815 and aggravated by one of the worst of recorded harvests. In that year, although the centre of the rioting was again in Nottingham, it extended over almost the whole kingdom. The rioters were also thoroughly organized. While part of the band destroyed the machinery, sentinels were posted to give warning of the approach of the military. Vigorous repressive measures, and, especially, reviving prosperity, brought the movement to an end.

See G. Pellew, *Life and Correspondence of H. Addington, 1st Viscount Sidmouth* (London, 1847); Spencer Walpole, *History of England*, vol. i. (London, 1890); and the *Annual Register* for 1811, 1812 and 1816.

LÜDENSCHEID, a town in the Prussian province of Westphalia, 19 m. by rail S.S.E. of Hagen. Pop. (1905) 28,921. It is the seat of various hardware manufactures, among them metal-plated and tin-plated goods, buckles, fancy nails and brooches, and has iron-foundries and machine shops. From the counts of Altena Lüdenscheid passed to the counts of the Mark, with which district it was ceded to Brandenburg early in the 17th century.

LUDHIANA, a town and district of British India, in the Jullundur division of the Punjab. The town is 8 m. from the present left bank of the Sutlej, 228 m. by rail N.W. of Delhi. Pop. (1901) 48,649. It is an important centre of trade in grain, and has manufactures of shawls, &c., by Kashmiri weavers, and of scarves, turbans, furniture and carriages. There is an American Presbyterian mission, which maintains a medical school for Christian women, founded in 1894.

The District of Ludhiana lies south of the river Sutlej, and north of the native states of Patiala, Jind, Nabha and Maler Kotla. Area 1455 sq. m. The district consists for the most part of a broad plain, without hills or rivers, stretching northward from the native borders to the ancient bed of the Sutlej. The soil is a rich clay, broken by large patches of shifting sand. On the eastern edge, towards Umballa, the clay is covered by a bed of rich mould, suitable for the cultivation of cotton and sugar-cane. Towards the west the sand occurs in union with the superficial clay, and forms a light friable soil, on which cereals form the most profitable crop. Even here, however, the earth is so retentive of moisture that good harvests are reaped from fields which appear mere stretches of dry and sandy waste. These southern uplands descend to the valley of the Sutlej by an abrupt terrace, which marks the former bed of the river. The principal stream has shifted to the opposite side of the valley, leaving an alluvial strip, 10 m. in width, between its ancient and its modern bed. The Sutlej itself is here only navigable for boats of small burden. A branch of the Sirhind canal irrigates a large part of the western area. The population in 1901 was 673,097. The principal crops are wheat, millets, pulse, maize and sugar-cane. The district is crossed by the main line of the North-Western railway from Delhi to Lahore, with two branches.

During the Mussulman epoch, the history of the district is bound up with that of the Rais of Raikot, a family of converted Rajputs, who received the country as a fief under the Sayyid dynasty, about 1445. The town of Ludhiana was founded in 1480 by two of the Lodi race (then ruling at Delhi), from whom it derives its name, and was built in great part from the prehistoric bricks of Sunet. The Lodis continued in possession until 1620, when it again fell into the hands of the Rais of Raikot. Throughout the palmy days of the Mogul empire the Raikot family held sway, but the Sikhs took advantage of the troubled period which accompanied the Mogul decadence to establish their supremacy south of the Sutlej. Several of their chieftains made encroachments on the domains of the Rais, who were only able to hold their own by the aid of George Thomas, the famous adventurer of Hariana. In 1806 Ranjit Singh crossed the Sutlej and reduced the obstinate Mahommedan family, and distributed their territory amongst his co-religionists. Since the British occupation of the Punjab, Ludhiana has grown in wealth and population.

See *Ludhiana District Gazetteer* (Lahore, 1907).

LUDINGTON, a city and the county-seat of Mason county, Michigan, U.S.A., on Lake Michigan, at the mouth of the Marquette river, about 85 m. N.W. of Grand Rapids. Pop. (1900) 7166 (2259 foreign-born); (1904, state census) 7259; (1910) 9132. It is served by the Père Marquette, and the Ludington and Northern railways, and by steamboat lines to Chicago, Milwaukee and other lake ports. To Manitowoc, Milwaukee, Kewanee and Two Rivers, Wisconsin, on the W. shore of Lake Michigan, cars, especially those of the Père Marquette railway, are ferried from here. Ludington was formerly well known as a lumber centre, but this industry has greatly declined. There are various manufactures, and the city has a large grain trade. On the site of the city Père Marquette died and was buried, but his body was removed within a year to Point St Ignace. Ludington was settled about 1859, and was chartered as a city in 1873. It was originally named Père Marquette, but was renamed in 1871 in honour of James Ludington, a local lumberman.

LUDLOW, EDMUND (*c.* 1617-1692), English parliamentarian, son of Sir Henry Ludlow of Maiden Bradley, Wiltshire, whose family had been established in that county since the 15th century, was born in 1617 or 1618. He went to Trinity College, Oxford, and was admitted to the Inner Temple in 1638. When the Great Rebellion broke out, he engaged as a volunteer in the life guard of Lord Essex. His first essay in arms was at Worcester, his next at Edgehill. He was made governor of Wardour Castle in 1643, but had to surrender after a tenacious defence on the 18th of March 1644. On being exchanged soon afterwards, he engaged as major of Sir A. Hesilrige's regiment of horse. He was present at the second battle of Newbury, October 1644, at the siege of Basing House in November, and took part in an expedition to relieve Taunton in December. In January his regiment was surprised by Sir M. Langdale, Ludlow himself escaping with difficulty. In 1646 he was elected M.P. for Wilts in the room of his father and attached himself to the republican party. He opposed the negotiations with the king, and was one of the chief promoters of Pride's Purge in 1648. He was one of the king's judges, and signed the warrant for his execution. In February he was elected a member of the council of state. In January 1651 Ludlow was sent into Ireland as lieutenant-general of horse, holding also a civil commission. Here he spared neither health nor money in the public service. Ireton, the deputy of Ireland, died on the 26th of November 1651; Ludlow then held the chief command, and had practically completed the conquest of the island when he resigned his authority to Fleetwood in October 1652. Though disapproving Cromwell's action in dissolving the Long Parliament, he maintained his employment, but when Cromwell was

declared Protector he declined to acknowledge his authority. On returning to England in October 1655 he was arrested, and on refusing to submit to the government was allowed to retire to Essex. After Oliver Cromwell's death Ludlow was returned for Hindon in Richard's parliament of 1659, but opposed the continuance of the protectorate. He sat in the restored Rump, and was a member of its council of state and of the committee of safety after its second expulsion, and a commissioner for the nomination of officers in the army. In July he was sent to Ireland as commander-in-chief. Returning in October 1659, he endeavoured to support the failing republican cause by reconciling the army to the parliament. In December he returned hastily to Ireland to suppress a movement in favour of the Long Parliament, but on arrival found himself almost without supporters. He came back to England in January 1660, and was met by an impeachment presented against him to the restored parliament. His influence and authority had now disappeared, and all chance of regaining them vanished with Lambert's failure. He took his seat in the Convention parliament as member for Hindon, but his election was annulled on the 18th of May. Ludlow was not excepted from the Act of Indemnity, but was included among the fifty-two for whom punishment less than capital was reserved. Accordingly, on the proclamation of the king ordering the regicides to come in, Ludlow emerged from his concealment, and on the 20th of June surrendered to the Speaker; but finding that his life was not assured, he succeeded in escaping to Dieppe, travelled to Geneva and Lausanne, and thence to Vevey, then under the protection of the canton of Bern. There he remained, and in spite of plots to assassinate him he was unmolested by the government of that canton, which had also extended its protection to other regicides. He steadily refused during thirty years of exile to have anything to do with the desperate enterprises of republican plotters. But in 1689 he returned to England, hoping to be employed in Irish affairs. He was however remembered only as a regicide, and an address from the House of Commons was presented to William III. by Sir Edward Seymour, requesting the king to issue a proclamation for his arrest. Ludlow escaped again, and returned to Vevey, where he died in 1692. A monument raised to his memory by his widow is in the church of St Martin. Over the door of the house in which he lived was placed the inscription "Omne solum forti patria, quia Patris." Ludlow married Elizabeth, daughter of William Thomas, of Wenvoe, Glamorganshire, but left no issue.

His *Memoirs*, extending to the year 1672, were published in 1698-1699 at Vevey and have been often reprinted; a new edition, with notes and illustrative material and introductory memoir, was issued by C. H. Firth in 1894. They are strongly partisan, but the picture of the times is lifelike and realistic. Ludlow also published "a letter from Sir Hardress Waller ... to Lieutenant-General Ludlow with his answer" (1660), in defence of his conduct in Ireland. See C. H. Firth's article in *Dict. Nat. Biog.*; Guizot's *Monk's Contemporaries*; A. Stein's *Briefe Englischer Flüchtlinge in der Schweiz*.

LUDLOW,

a market town and municipal borough in the Ludlow parliamentary division of Shropshire, England, on the Hereford-Shrewsbury joint line of the Great Western and London & North Western railways, 162 m. W.N.W. from London. Pop. (1901) 4552. It is beautifully situated at the junction of the rivers Teme and Corve, upon and about a wooded eminence crowned by a massive ruined castle. Parts of this castle date from the 11th century, but there are many additions such as the late Norman circular chapel, the Decorated state rooms, and details in Perpendicular and Tudor styles. The parish church of St Lawrence is a cruciform Perpendicular building, with a lofty central tower, and a noteworthy east window, its 15th-century glass showing the martyrdom of St Lawrence. There are many fine half-timbered houses of the 17th century, and one of seven old town-gates remains. The grammar school, founded in the reign of John, was incorporated by Edward I. The principal public buildings are the guildhall, town-hall and market-house, and public rooms, which include a museum of natural history. Tanning and flour-milling are carried on. The town is governed by a mayor, 4 aldermen and 12 councillors. Area 416 acres.

The country neighbouring Ludlow is richly wooded and hilly, while the scenery of the Teme is exquisite. Westward, Vinnal Hill reaches 1235 ft., eastward lies Titterstone Clee (1749 ft.). Richard's Castle, 3 m. S. on the borders of Herefordshire, dates from the reign of Edward the Confessor, but little more than its great artificial mound remains. At Bromfield, 3 m. above Ludlow on the Teme, the church and some remains of domestic buildings belonged to a Benedictine monastery of the 12th century.

Ludlow is supposed to have existed under the name of Dinan in the time of the Britons. Eyton in his history of Shropshire identifies it with one of the "Ludes" mentioned in the Domesday Survey, which was held by Roger de Lacy of Osbern FitzRichard and supposes that Roger built the castle soon after 1086, while a chronicle of the FitzWarren family attributes the castle to Roger earl of Shrewsbury. The manor afterwards belonged to the Lacys, and in the beginning of the 14th century passed by marriage to Roger de Mortimer and through him to Edward IV. Ludlow was a borough by prescription in the 13th century, but the burgesses owe most of their privileges to their allegiance to the house of York. Richard, duke of York, in 1450 confirmed their government by 12 burgesses and 24 assistants, and Edward IV. on his accession incorporated them under the title of bailiffs and burgesses, granted them the town at a fee-farm of £24, 3s. 4d., a merchant gild and freedom from toll. Several confirmations of this charter were granted; the last, dated 1665, continued in force (with a short interval in the reign of James II.) until the Municipal Corporations Act of 1835. By the charter of Edward IV. Ludlow returned 2 members to parliament, but in 1867 the number was reduced to one, and in 1885 the town was disfranchised. The market rights are claimed by the corporation under the charters of Edward IV. (1461) and Edward VI. (1552). The court of the Marches was established at Ludlow in the reign of Henry VII., and continued to be held here until it was abolished in the reign of William III. Ludlow castle was granted by Edward IV. to his two sons, and by Henry VII. to Prince Arthur, who died here in 1502. In 1634 Milton's Comus was performed in the castle under its original style of "A Masque presented at Ludlow Castle," before the earl of Bridgewater, Lord President of Wales. The castle was garrisoned in 1642 by Prince Rupert, who went there after the battle of Naseby, but in 1646 it surrendered to Parliament and was afterwards dismantled.

See *Victoria County History*, Shropshire; Thomas Wright, *The History of Ludlow and its Neighbourhood* (1826).

LUDLOW GROUP,

or Ludlovian, in geology, the uppermost subdivision of the Silurian rocks in Great Britain. This group contains the following formations in descending order:—Tilestones, Downton Castle sandstones (90 ft.), Ledbury shales (270 ft.), Upper Ludlow rocks (140 ft.), Aymestry limestone (up to 40 ft.), Lower Ludlow rocks (350 to 780 ft.). The Ludlow group is essentially shaly in character, except towards the top, where the beds become more sandy and pass gradually into the base of the Old Red Sandstone. The Aymestry limestone, which is irregular in thickness, is sometimes absent, and where the underlying Wenlock limestones are absent the shales of the Ludlow group graduate downwards into the Wenlock shales. The group is typically developed between Ludlow and Aymestry, and it occurs also in the detached Silurian areas between Dudley and the mouth of the Severn.

The *Lower Ludlow rocks* are mainly grey, greenish and brown mudstones and sandy and calcareous shales. They contain an abundance of fossils. The series has been zoned by means of the graptolites by E. M. R. Wood; the following in ascending

order, are the zonal forms: *Monograptus vulgaris*, *M. Nilssoni*, *M. scanicus*, *M. tumescens* and *M. leintwardinensis*. *Cyathaspis ludensis*, the earliest British vertebrate fossil, was found in these rocks at Leintwardine in Shropshire, a noted fossil locality. Trilobites are numerous (*Phacops caudatus*, *Lichas anglicus*, *Homolonotus delphinocephalus*, *Calymene Blumenbachii*); brachiopods (*Leptaena rhomboidalis*, *Rhynchonella Wilsoni*, *Atrypa reticularis*), pelecypods (*Cardiola interrupta*, *Ctenodonta sulcata*) and gasteropods and cephalopods (many species of *Orthoceras* and also *Gomphoceras*, *Trochoceras*) are well represented. Other fossils are *Ceratiocaris*, *Pterygotus*, *Protaster*, *Palaeocoma* and *Palaeodiscus*.

The *Upper Ludlow rocks* are mainly soft mudstones and shales with some harder sandy beds capable of being worked as building-stones. These sandy beds are often found covered with ripple-marks and annelid tracks; one of the uppermost sandy layers is known as the "Fucoid bed" from the abundance of the seaweed-like impressions it bears. At the top of this sub-group, near Ludlow, a brown layer occurs, from a quarter of an inch to 4 in. in thickness, full of the fragmentary remains of fish associated with those of *Pterygotus* and mollusca. This layer, known as the "Ludlow Bone bed," has been traced over a very large area (see BONE BED). The common fossils include plants (*Actinophyllum*, *Chondrites*), ostracods, phyllocarids, eurypterids, trilobites (less common than in the older groups), numerous brachiopods (*Lingula minima*, *Chonetes striatella*), gasteropods, pelecypods and cephalopods (*Orthoceras bullatum*). Fish include *Cephalaspis*, *Cyathaspis*, *Auchenaspis*. The Tilestones, Downton Castle Sandstone and Ledbury shales are occasionally grouped together under the term *Downtonian*. They are in reality passage beds between the Silurian and Old Red Sandstone, and were originally placed in the latter system by Sir R. I. Murchison. They are mostly grey, yellow or red micaceous, shaly sandstones. *Lingula cornea*, *Platyschisma helicites* and numerous phyllocarids and ostracods occur among the fossils.

In Denbighshire and Merionethshire the upper portion of the Denbighshire Grits belongs to this horizon: viz. those from below upwards, the Nantglyn Flags, the Upper Grit beds, the *Monograptus leintwardinensis* beds and the Dinas Bran beds. In the Silurian area of the Lake district the Coldwell beds, forming the upper part of the Coniston Flags, are the equivalents of the Lower Ludlow; they are succeeded by the Coniston Grits (4000 ft.), the Bannisdale Slates (5200 ft.) and the Kirkby Moor Flags (2000 ft.).

In the Silurian areas of southern Scotland, the Ludlow rocks are represented in the Kirkcudbright Shore and Riccarton district by the Raeberry Castle beds and Balmae Grits (500-750 ft.). In the northern belt—Lanarkshire and the Pentland Hills—the lower portion (or Ludlovian) consists of mudstones, flaggy shales and greywackes; but the upper (or Downtonian) part is made up principally of thick red and yellow sandstones and conglomerates with green mudstones. The Ludlow rocks of Ireland include the "Salrock beds" of County Galway and the "Croagmarhin beds" of Dingle promontory.

See SILURIAN, and, for recent papers, the *Q. J. Geol. Soc.* (London) and *Geological Literature* (Geol. Soc., London) annual.

LUDOLF (or LEUTHOLF), HIOB (1624-1704), German orientalist, was born at Erfurt on the 15th of June 1624. After studying philology at the Erfurt academy and at Leiden, he travelled in order to increase his linguistic knowledge. While in Italy he became acquainted with one Gregorius, an Abyssinian scholar, and acquired from him an intimate knowledge of the Ethiopian language. In 1652 he entered the service of the duke of Saxe-Gotha, in which he continued until 1678, when he retired to Frankfort-on-Main. In 1683 he visited England to promote a cherished scheme for establishing trade with Abyssinia, but his efforts were unsuccessful, chiefly through the bigotry of the authorities of the Abyssinian Church. Returning to Frankfort in 1684, he gave himself wholly to literary work, which he continued almost to his death on the 8th of April 1704. In 1690 he was appointed president of the *collegium imperiale historicum*.

The works of Ludolf, who is said to have been acquainted with twenty-five languages, include *Sciagraphia historiae aethiopicae* (Jena, 1676); and the *Historia aethiopica* (Frankfort, 1681), which has been translated into English, French and Dutch, and which was supplemented by a *Commentarius* (1691) and by *Appendices* (1693-1694). Among his other works are: *Grammatica linguae amharicae* (Frankfort, 1698); *Lexicon amharico-latinum* (Frankfort, 1698); *Lexicon aethiopico-latinum* (Frankfort, 1699); and *Grammatica aethiopica* (London, 1661, and Frankfort, 1702). In his *Grammatik der äthiopischen Sprache* (1857) August Dillmann throws doubt on the story of Ludolf's intimacy with Gregorius.

See C. Juncker, *Commentarius de vita et scriptis Jobi Ludolfi* (Frankfort, 1710); L. Diestel, *Geschichte des alten Testaments in der christlichen Kirche* (Jena, 1868); and J. Flemming, "Hiob Ludolf," in the *Beiträge zur Assyriologie* (Leipzig, 1890-1891).

LUDWIG, KARL FRIEDRICH WILHELM (1816-1895), German physiologist, was born at Witzenhausen, near Cassel, on the 29th of December 1816. He studied medicine at Erlangen and Marburg, taking his doctor's degree at Marburg in 1839. He made Marburg his home for the next ten years, studying and teaching anatomy and physiology, first as prosector to F. L. Fick (1841), then as *privat-docent* (1842), and finally as extraordinary professor (1846). In 1849 he was chosen professor of anatomy and physiology at Zürich, and six years afterwards he went to Vienna as professor in the Josephinum (school for military surgeons). In 1865 he was appointed to the newly created chair of physiology at Leipzig, and continued there until his death on the 23rd of April 1895. Ludwig's name is prominent in the history of physiology, and he had a large share in bringing about the change in the method of that science which took place about the middle of the 19th century. With his friends H. von Helmholtz, E. W. Brücke and E. Du Bois-Reymond, whom he met for the first time in Berlin in 1847, he rejected the assumption that the phenomena of living animals depend on special biological laws and vital forces different from those which operate in the domain of inorganic nature; and he sought to explain them by reference to the same laws as are applicable in the case of physical and chemical phenomena. This point of view was expressed in his celebrated *Text-book of Human Physiology* (1852-1856), but it is as evident in his earliest paper (1842) on the process of urinary secretion as in all his subsequent work. Ludwig exercised enormous influence on the progress of physiology, not only by the discoveries he made, but also by the new methods and apparatus he introduced to its service. Thus in regard to secretion, he showed that secretory glands, such as the submaxillary, are more than mere filters, and that their secretory action is attended by chemical and thermal changes both in themselves and in the blood passing through them. He demonstrated the existence of a new class of secretory nerves that control this action, and by showing that if the nerves are appropriately stimulated the salivary glands continue to secrete, even though the animal be decapitated, he initiated the method of experimenting with excised organs. He devised the kymograph as a means of obtaining a written record of the variations in the pressure of the blood in the blood-vessels; and this apparatus not only conducted him to many important conclusions respecting the mechanics of the circulation, but afforded the first instance of the use of the graphic method in physiological inquiries. For the purpose of his researches on the gases in the blood, he designed the mercurial blood-pump which in various modifications has come into extensive use, and by its aid he made many investigations on the gases of the lymph, the gaseous interchanges in living muscle, the significance of oxidized material in the blood, &c. There is indeed scarcely any branch of physiology, except the

physiology of the senses, to which he did not make important contributions. He was also a great power as a teacher and the founder of a school. Under him the Physiological Institute at Leipzig became an organized centre of physiological research, whence issued a steady stream of original work; and though the papers containing the results usually bore the name of his pupils only, every investigation was inspired by him and carried out under his personal direction. Thus his pupils gained a practical acquaintance with his methods and ways of thought, and, coming from all parts of Europe, they returned to their own countries to spread and extend his doctrines. Possessed himself of extraordinary manipulative skill, he abhorred rough and clumsy work, and he insisted that experiments on animals should be planned and prepared with the utmost care, not only to avoid the infliction of pain (which was also guarded against by the use of an anaesthetic), but to ensure that the deductions drawn from them should have their full scientific value.

LUDWIG, OTTO (1813-1865), German dramatist, novelist and critic, was born at Eisfeld in Thuringia, on the 11th of February 1813. His father, who was syndic of Eisfeld, died when the boy was twelve years old, and he was brought up amidst uncongenial conditions. He had devoted his leisure to poetry and music, which unfitted him for the mercantile career planned for him. The attention of the duke of Meiningen was directed to one of his musical compositions, an opera, *Die Köhlerin*, and Ludwig was enabled in 1839 to continue his musical studies under Mendelssohn in Leipzig. But ill-health and constitutional shyness caused him to give up a musical career, and he turned exclusively to literary studies, and wrote several stories and dramas. Of the latter, *Der Erbförster* (1850) attracted immediate attention as a masterly psychological study. It was followed by *Die Makkabäer* (1852), in which the realistic method of *Der Erbförster* was transferred to an historical *milieu*, which allowed more brilliant colouring and a freer play of the imagination. With these tragedies, to which may be added *Die Rechte des Herzens* and *Das Fräulein von Scuderi*, the comedy *Hans Frey*, and an unfinished tragedy on the subject of Agnes Bernauer, Ludwig ranks immediately after Hebbel as Germany's most notable dramatic poet at the middle of the 19th century. Meanwhile he had married and settled permanently in Dresden, where he turned his attention to fiction. He published a series of admirable stories of Thuringian life, characterized by the same attention to minute detail and careful psychological analysis as his dramas. The best of these are *Die Heiteretei und ihr Widerspiel* (1851), and Ludwig's masterpiece, the powerful novel, *Zwischen Himmel und Erde* (1855). In his *Shakespeare-Studien* (not published until 1891) Ludwig showed himself a discriminating critic, with a fine insight into the hidden springs of the creative imagination. So great, however, was his enthusiasm for Shakespeare, that he was led to depreciate Schiller in a way which found little favour among his countrymen. He died at Dresden on the 25th of February 1865.

Ludwig's *Gesammelte Schriften* were published by A. Stern and E. Schmidt in 6 vols. (1891-1892); also by A. Bartels (6 vols., 1900). See A. Stern, *Otto Ludwig, ein Dichterleben* (1891; 2nd ed., 1906), and A. Sauer, *Otto Ludwig* (1893).

LUDWIGSBURG, a town in the kingdom of Württemberg, 9 m. to the N. of Stuttgart by rail and 1½ m. from the river Neckar. Pop. (1905) 23,093. It was founded and laid out at the beginning of the 18th century by the duke of Württemberg, Eberhard Louis, and was enlarged and improved by Duke Charles Eugène. Constructed as the adjunct of a palace the town bears the impress of its origin, with its straight streets and spacious squares. It is now mainly important as the chief military depot in Württemberg. The royal palace, one of the finest in Germany, stands in a beautiful park and contains a portrait gallery and the burial vault of the rulers of Württemberg. The industries include the manufacture of organs and pianos, of cotton, woollen and linen goods, of chemicals, iron and wire goods, and brewing and brick-making. In the vicinity is the beautiful royal residence of Monrepos, which is connected with the park of Ludwigsburg by a fine avenue of lime trees. From 1758 to 1824 the town was famous for the production of a special kind of porcelain.

See Belschner, *Ludwigsburg in zwei Jahrhunderten* (Ludwigsburg, 1904).

LUDWIGSHAFEN, a town of Germany, in the Bavarian Palatinate, on the left bank of the Rhine, immediately opposite to Mannheim, with which it is connected by a steam ferry and a railway bridge. Pop. (1885) 21,042, (1900) 61,905, (1905) 72,168. It has an increasing trade in iron, timber, coal and agricultural products, a trade which is fostered by a harbour opened in 1897; and also large factories for making aniline dyes and soda. Other industries are the manufacture of cellulose, artificial manure, flour and malt; and there are saw-mills, iron foundries and breweries in the town. The place, which was founded in 1843 by Louis I., king of Bavaria, was only made a town in 1859.

See J. Esselborn, *Geschichte der Stadt Ludwigshafen* (Ludwigshafen, 1888).

LUDWIGSLUST, a town of Germany, in the grand-duchy of Mecklenburg-Schwerin, 22 m. by rail S. by E. of Schwerin. Pop. (1905) 6728. The castle was built by the duke of Mecklenburg-Schwerin, Frederick II., in 1772-1776. There is also another ducal residence, a fine park and a monument of the grand duke, Frederick Francis I. (d. 1837). The town has a church constructed on the model of a Greek temple. It has manufactures of chemicals and other small industries. Ludwigslust was founded by the duke Frederick, being named after this duke's father, Christian Louis II. It became a town in 1876.

LUG, a verb meaning to pull a heavy object, to drag, now mainly used colloquially. It is probably Scandinavian in origin; the Swedish *lugg*, forelock, lock of hair, gives *lugga*, to pull, tug; and "lug" in some north-eastern English dialects is still chiefly used in the sense of pulling a person's hair. "Luggage," passengers' baggage, means by origin that which has to be "lugged" about. The Scandinavian word may be also the source of "lug," in the sense of "ear," in Scotland the regular dialectical word, and in English commonly applied to the ear-shaped handles of metal or earthenware pots, pitchers, &c. If so the word means something that can be pulled or tugged. This is also possibly the origin of the "lug" or "lug-sail," a four-sided sail attached to a yard which is hung obliquely to the mast, whence probably the name "lugger" of a sailing-vessel with two or three masts and fore and aft lug-sails. The word may, however, be connected with the Dutch *logger*, a fishing-boat using drag-nets. "Lug" is also the name of a marine worm, *Arenicola marina*, used as bait.

LUGANO (Ger. *Lauis*), the most populous and most thriving town in the Swiss canton of Ticino or Tessin, situated (906 ft.) on the northern shore of the lake of Lugano. Pop. (1900) 9394, almost all Italian-speaking and Romanists. To the S. it is dominated by the Monte Salvatore (3004 ft.) and on the S.E. (across the lake) by the Monte Generoso (5591 ft.)—a magnificent view point. Both mountains are accessible by railways. By rail Lugano is 124 m. from Lucerne and 51½ m. from Milan. Situated on the main St Gotthard railway line, Lugano is now easily reached, so that it is much frequented by visitors (largely German) in spring and in autumn. Though politically Swiss since 1512, Lugano is thoroughly Italian in appearance and character. Of recent years many improvements have been made in the town, which has two important suburbs—Paradiso to the south and Cassarate to the east. The railway station (1109 ft.) is above the town, and is connected with the fine quays by a funicular railway. On the main quay is a statue of William Tell by the sculptor Vincenzo Vela (1820-1891), a native of the town, while other works by him are in the gardens of private villas in the neighbourhood. The principal church, San Lorenzo, in part dates back earlier than the 15th century, while its richly sculptured façade bears the figures 1517. This church is now the cathedral church of the bishop of Lugano, a see erected in 1888, with jurisdiction over the Italian parts of Switzerland. The church of Santa Maria degli Angioli, built about 1499, and till 1848 occupied by Franciscans, contains several very fine frescoes (particularly a Crucifixion) painted 1529-1530 by Bernardino Luini. A gallery containing modern pictures has been built on the site of the old palace of the bishops of Como. During the struggle of 1848-1866 to expel the Austrians from Lombardy, Lugano served as headquarters for Mazzini and his followers. Books and tracts intended for distribution in Italy were produced there and at Capolago (9 m. distant, at the S.E. end of the lake), and the efforts of the Austrian police to prevent their circulation were completely powerless.

(W. A. B. C.)

LUGANO, LAKE OF (also called Ceresio), one of the smaller lakes in Lombardy, N. Italy, lying between Lago Maggiore (W.) and the Lake of Como (E). It is of very irregular shape, the great promontory of Monte Salvatore (3004 ft.) nearly cutting off the western arm from the main lake. The whole lake has an area of 19½ sq. m., its greatest length is about 22 m., its greatest width 2 m., and its greatest depth 945 ft., while its surface is 899 ft. above sea-level. Between Melide (S. of the town of Lugano) and Maroggia (on the east shore) the lake is so shallow that a great stone dam has been built across for the St Gotthard railway line and the carriage road. The chief town is Lugano (at its northern end), which by the St Gotthard line is 19 m. from Bellinzona and 9 m. from Capolago, the station at the south-eastern extremity of the lake, which is but 8 m. by rail from Como. At the south-western extremity a railway leads S.W. from Porto Ceresio to Varese (9 m.). Porlezza, at the east end of the lake, is 8 m. by rail from Menaggio on the Lake of Como, while Ponte Tresa, at the west end of the lake, is about the same distance by a steam tramway from Luino on Lago Maggiore. Of the total area of the lake, about 7½ sq. m. are in the Swiss Canton of Ticino (Tessin), formed in 1803 out of the conquests made by the Swiss from the Milanese in 1512. The remainder of the area is in Italy. The lake lies among the outer spurs of the Alps that divide the Ticino (Tessin) basin from that of the Adda, where the calcareous strata have been disturbed by the intrusion of porphyry and other igneous rocks. It is not connected with any considerable valley, but is fed by numerous torrents issuing from short glens in the surrounding mountains, while it is drained by the Tresa, an unimportant stream flowing into Lago Maggiore. The first steamer was placed on the lake in 1856.

(W. A. B. C.)

LUGANSK (also Lugań and Luganskiy Zavōd), a town of southern Russia, in the government of Ekaterinoslav. Pop. (1900) 34,175. It has a technical railway school and a meteorological observatory, stands on the small river Lugan, 10 m. from its confluence with the northern Donets, in the Lugan mining district, 213 m. E. of the city of Ekaterinoslav, and has prospered greatly since 1890. This district, which comprises the coal-mines of Lisichansk and the anthracite mines of Gorodishche, occupies about 110,000 acres on the banks of the Donets river. Although it is mentioned in the 16th century, and coal was discovered there at the time of Peter the Great, it was not until 1795 that an Englishman, Gascoyne or Gaskoin, established its first iron-works for supplying the Black Sea fleet and the southern fortresses with guns and shot. This proved a failure, owing to the great distance from the sea; but during the Crimean War the iron-works of Lugan again produced shot, shell and gun-carriages. Since 1864 agricultural implements, steam-engines, and machinery for beetroot sugar-works, distilleries, &c., have been the chief manufactures. There is an active trade in cattle, tallow, wools, skins, linseed, wine, corn and manufactured wares.

LUGARD, SIR FREDERICK JOHN DEALTRY (1858-), British soldier, African explorer and administrator, son of the Rev. F. G. Lugard, was born on the 22nd of January 1858. He entered the army in 1878, joining the Norfolk regiment. He served in the Afghan War of 1879-80, in the Sudan campaign of 1884-85, and in Burma in 1886-87. In May 1888, while on temporary half-pay, he took command of an expedition organized by the British settlers in Nyasaland against the Arab slave traders on Lake Nyasa, and was severely wounded. He left Nyasaland in April 1889, and in the same year was engaged by the Imperial British East Africa Company. In their service he explored the Sabaki river and the neighbouring region, and elaborated a scheme for the emancipation of the slaves held by the Arabs in the Zanzibar mainland. In 1890 he was sent by the company to Uganda, where he secured British predominance and put an end to the civil disturbances, though not without severe fighting, chiefly notable for an unprovoked attack by the "French" on the "British" faction. While administering Uganda he journeyed round Ruwenzori to Albert Edward Nyanza, mapping a large area of the country. He also visited Albert Nyanza, and brought away some thousands of Sudanese who had been left there by Emin Pasha and H. M. Stanley. In 1892 Lugard returned to England, where he successfully opposed the abandonment of Uganda by Great Britain, a step then contemplated by the fourth Gladstone administration. In 1894 Lugard was despatched by the Royal Niger Company to Borgu, where, distancing his French and German rivals in a country up to then unvisited by any Europeans, he secured treaties with the kings and chiefs acknowledging the sovereignty of the British company. In 1896-1897 he took charge of an expedition to Lake Ngami on behalf of the British West Charterland Company. From Ngami he was recalled by the British government and sent to West Africa, where he was commissioned to raise a native force to protect British interests in the hinterland of Lagos and Nigeria against French aggression. In August 1897 he raised the West African Frontier Force, and commanded it until the end of December 1899. The differences with France were then composed, and, the Royal Niger Company having surrendered its charter, Lugard was chosen as high commissioner of Northern Nigeria. The part of Northern Nigeria under effective control was small, and Lugard's task in organizing this vast territory was rendered more difficult by the refusal of the sultan of Sokoto and many other Fula princes to fulfil their treaty obligations. In 1903 a successful campaign against the emir of Kano and the sultan of Sokoto rendered the extension of British control over the whole protectorate possible, and when in September 1906 he resigned his commissionership, the whole country was being peacefully administered under the supervision of British residents (see NIGERIA). In April 1907 he was appointed governor of Hong-Kong. Lugard was created a C.B. in 1895 and a K.C.M.G. in 1901. He became a colonel in 1905, and held the local rank of brigadier-general. He married in 1902 Flora Louise Shaw (daughter of Major-General George Shaw, C.B., R.A.), who for some years had been a distinguished writer on colonial subjects for *The Times*. Sir Frederick (then Captain) Lugard published in 1893 *The Rise of our East African Empire* (partly autobiographical), and was the author of various valuable reports on Northern Nigeria issued by the Colonial Office. Throughout his African administrations Lugard sought strenuously to secure the amelioration of the condition of the native races, among other means by the exclusion, wherever possible, of alcoholic liquors, and by the suppression of slave raiding and slavery.

LUGO, a maritime province of north-western Spain, formed in 1833 of districts taken from the old province of Galicia, and bounded N. by the Atlantic, E. by Oviedo and Leon, S. by Orense, and W. by Pontevedra and Corunna. Pop. (1900) 465,386; area, 3814 sq. m. The coast, which extends for about 40 m. from the estuary of Rivadéo to Cape de Vares, is extremely rugged and inaccessible, and few of the inlets, except those of Rivadéo and Vivero, admit large vessels. The province, especially in the north and east, is mountainous, being traversed by the Cantabrian chain and its offshoots; the sierra which separates it from Leon attains in places a height of 6000 ft. A large part of the area is drained by the Miño. This river, formed by the meeting of many smaller streams in the northern half of the province, follows a southerly direction until joined by the Sil, which for a considerable distance forms the southern boundary. Of the rivers flowing north into the Atlantic, the most important are the Navia, which has its lower course through Oviedo; the Eo, for some distance the boundary between the two provinces; the Masma, the Oro and the Landrove.

Some of the valleys of Lugo are fertile, and yield not only corn but fruit and wine. The principal agricultural wealth, however, is on the Miño and Sil, where rye, maize, wheat, flax, hemp and a little silk are produced. Agriculture is in a very backward condition, mainly owing to the extreme division of land that prevails throughout Galicia. The exportation of cattle to Great Britain, formerly a flourishing trade, was ruined by American and Australian competition. Iron is found at Caurel and Incio, arsenic at Castroverde and Cervantes, argentiferous lead at Riotorto; but, although small quantities of iron and arsenic are exported from Rivadéo, frequent strikes and lack of transport greatly impeded the development of mining in the earlier years of the 20th century. There are also quarries of granite, marble and various kinds of slate and building-stone. The only important manufacturing industries are those connected with leather, preserves, coarse woollen and linen stuffs, timber and osier work. About 250 coasting vessels are registered at the ports, and about as many boats constitute the fishing fleet, which brings in lampreys, soles, tunny and sardines, the last two being salted and tinned for export. The means of communication are insufficient, though there are over 100 m. of first-class roads, and the railways from Madrid and northern Portugal to Corunna run through the province.

Lugo the capital (pop. 1900, 26,959) and the important towns of Chantada (15,003), Fonsagrada (17,302), Mondoñedo (10,590), Monforte (12,912), Panton (12,988), Villalba (13,572) and Vivero (12,843) are described in separate articles. The province contained in 1900 twenty-six towns of more than 7000 inhabitants, the largest being Sarria (11,998) and Saviñao (11,182). For a general description of the people and the history of this region see GALICIA.

LUGO, capital of the above Spanish province, is situated on the left bank of the river Miño and on the railway from Corunna to Madrid. Pop. (1900) 26,959. Lugo is an episcopal see, and was formerly the capital of Galicia. Suburbs have grown up round the original town, the form of which, nearly quadrangular, is defined by a massive Roman wall 30 to 40 ft. high and 20 ft. thick, with projecting semi-circular towers which numbered 85 as late as 1809, when parts of the fortifications were destroyed by the French. The wall now serves as a promenade. The Gothic cathedral, on the south side of the town, dates from the 12th century, but was modernized in the 18th, and possesses no special architectural merit. The conventual church of Santo Domingo dates from the 14th century. The principal industries are tanning, and the manufacture of linen and woollen cloth. About 1 m. S., on the left bank of the Miño, are the famous hot sulphur baths of Lugo.

Lugo (*Lucus Augusti*) was a flourishing city under Roman rule (*c.* 19 B.C.-A.D. 409) and was made by Augustus the seat of a *conventus juridicus* (assize). Its sulphur baths were even then well known. It was sacked by barbarian invaders in the 5th century, and suffered greatly in the Moorish wars of the 8th century. The bishopric dates from a very early period, and it is

said to have acquired metropolitan rank in the middle of the 6th century; it is now in the archiepiscopal province of Santiago de Compostela.

LUGOS, the capital of the county of Krassó-Szörény, Hungary, 225 m. S.E. of Budapest by rail. Pop. (1900) 16,126. It is situated on both banks of the river Temes, which divides the town in two quarters, the Rumanian on the right and the German on the left bank. It is the seat of a Greek-United (Rumanian) bishop. Lugos carries on an active trade in wine, and has several important fairs, while the surrounding country, which is mountainous and well-wooded, produces large quantities of grapes and plums. Lugos was once a strongly fortified place and of greater relative importance than at present. It was the last seat of the Hungarian revolutionary government (August 1849), and the last resort of Kossuth and several other leaders of the national cause, previous to their escape to Turkey.

LUGUDUNUM, or Lugdunum, an old Celtic place-name (fort or hill of the god Lugos or Lug) used by the Romans for several towns in ancient Gaul. The most important was the town at the confluence of the Saône and Rhone now called Lyons (*q.v.*). This place had in Roman times two elements. One was a Roman *colonia* (municipality of Roman citizens, self-governing) situated on the hill near the present Fourviéres (*Forum vetus*). The other, territorially distinct from it for reasons of statecraft, was the Temple of Roma and Augustus, to which the inhabitants of the 64 Gallic cantons in the three Roman provinces of Aquitania, Lugudunensis and Belgica—the so-called Tres Galliae—sent delegates every summer to hold games and otherwise celebrate the worship of the emperor which was supposed to knit the provincials to Rome. The two elements together composed the most important town of western Europe in Roman times. Lugudunum controlled the trade of its two rivers, and that which passed from northern Gaul to the Mediterranean or vice versa; it had a mint; it was the capital of all northern Gaul, despite its position in the south, and its wealth was such that, when Rome was burnt in Nero's reign, its inhabitants subscribed largely to the relief of the Eternal City.

(F. J. H.)

LUINI, BERNARDINO (?1465-?1540), the most celebrated master of the Lombard school of painting founded upon the style of Leonardo da Vinci, was born at Luino, a village on Lago Maggiore. He wrote his name as "Bernardin Lovino," but the spelling "Luini" is now generally adopted. Few facts are known regarding his life, and until a comparatively recent date many even of his works had, in the lapse of years and laxity of attribution, got assigned to Leonardo da Vinci. It appears that Luini studied painting at Vercelli under Giovenone, or perhaps under Stephano Scotto. He reached Milan either after the departure of Da Vinci in 1500, or shortly before that event; it is thus uncertain whether or not the two artists had any personal acquaintance, but Luini was at any rate in the painting-school established in Milan by the great Florentine. In the later works of Luini a certain influence from the style of Raphael is superadded to that, far more prominent and fundamental, from the style of Leonardo; but there is nothing to show that he ever visited Rome. His two sons are the only pupils who have with confidence been assigned to him; and even this can scarcely be true of the younger, who was born in 1530, when Bernardino was well advanced in years. Guadenzio Ferrari has also been termed his disciple. One of the sons, Evangelista, has left little which can now be identified; the other, Aurelio, was accomplished in perspective and landscape work. There was likewise a brother of Bernardino, named Ambrogio, a competent painter. Bernardino, who hardly ever left Lombardy, had some merit as a poet, and is said to have composed a treatise on painting. The precise date of his death is unknown; he may perhaps have survived till about 1540. A serene, contented and happy mind, naturally expressing itself in forms of grace and beauty, seems stamped upon all the works of Luini. The same character is traceable in his portrait, painted in an upper group in his fresco of "Christ crowned with Thorns" in the Ambrosian library in Milan—a venerable bearded personage. The only anecdote which has been preserved of him tells a similar tale. It is said that for the single figures of saints in the church at Saronno he received a sum equal to 22 francs per day, along with wine, bread and lodging; and he was so well satisfied with this remuneration that, in completing the commission, he painted a Nativity for nothing.

A dignified suavity is the most marked characteristic of Luini's works. They are constantly beautiful, with a beauty which depends at least as much upon the loving self-withdrawn expression as upon the mere refinement and attractiveness of form. This quality of expression appears in all Luini's productions, whether secular or sacred, and imbues the latter with a peculiarly religious grace—not ecclesiastical unction, but the devoutness of the heart. His heads, while extremely like those painted by Leonardo, have less subtlety and involution and less variety of expression, but fully as much amenity. He began indeed with a somewhat dry style, as in the "Pietà" in the church of the Passione; but this soon developed into the quality which distinguishes all his most renowned works; although his execution, especially as regards modelling, was never absolutely equal to that of Leonardo. Luini's paintings do not exhibit an impetuous style of execution, and certainly not a negligent one; yet it appears that he was in fact a very rapid worker, as his picture of the "Crowning with Thorns," painted for the College del S. Sepolcro, and containing a large number of figures, is recorded to have occupied him only thirty-eight days, to which an assistant added eleven. His method was simple and expeditious, the shadows being painted with the pure colour laid on thick, while the lights are of the same colour thinly used, and mixed with a little white. The frescoes exhibit more freedom of hand than the oil pictures; and they are on the whole less like the work of Da Vinci, having at an early date a certain resemblance to the style of Mantegna, as later on to that of Raphael. Luini's colouring is mostly rich, and his light and shade forcible.

Among his principal works the following are to be mentioned. At Saronno are frescoes painted towards 1525, representing the life of the Madonna—her "Marriage," the "Presentation of the Infant Saviour in the Temple," the "Adoration of the Magi" and other incidents. His own portrait appears in the subject of the youthful "Jesus with the Doctors in the Temple." This series—in which some comparatively archaic details occur, such as gilded nimbuses—was partly repeated from one which Luini had executed towards 1520 in S. Croce. In the Brera Gallery, Milan, are frescoes from the suppressed church of La Pace and the Convent della Pelucca—the former treating subjects from the life of the Virgin, the latter, of a classic kind, more decorative in manner. The subject of girls playing at the game of "hot-cockles," and that of three angels depositing St Catherine in her sepulchre, are particularly memorable, each of them a work of perfect charm and grace in its way. In the Casa Silva, Milan,

are frescoes from Ovid's *Metamorphoses*. The Monastero Maggiore of Milan (or church of S. Maurizio) is a noble treasure-house of Luini's art—including a large Crucifixion, with about one hundred and forty figures; "Christ bound to the Column," between figures of Saints Catherine and Stephen, and the founder of the chapel kneeling before Catherine; the martyrdom of this saint; the "Entombment of Christ," and a large number of other subjects. In the Ambrosian library is the fresco (already mentioned), covering one entire wall of the Sala della S. Corona, of "Christ crowned with Thorns," with two executioners, and on each side six members of a confraternity; in the same building the "Infant Baptist playing with a Lamb"; in the Brera, the "Virgin Enthroned, with Saints" (dated 1521); in the Louvre, the "Daughter of Herodias receiving the Head of the Baptist"; in the Esterhazy Gallery, Vienna, the "Virgin between Saints Catherine and Barbara"; in the National Gallery, London, "Christ disputing with the Doctors" (or rather, perhaps, the Pharisees). Many or most of these gallery pictures used to pass for the handiwork of Da Vinci. The same is the case with the highly celebrated "Vanity and Modesty" in the Sciarra Palace, Rome, which also may nevertheless in all probability be assigned to Luini. Another singularly beautiful picture by him is in the Royal Palace in Milan—a large composition of "Women Bathing." That Luini was also pre-eminent as a decorative artist is shown by his works in the Certosa of Pavia.

A good account of Luini by Dr G. C. Williamson was published in 1900.

(W. M. R.)

LUKE, the traditional author of the third Gospel and of the Book of Acts, and the most literary among the writers of the New Testament. He alone, too, was of non-Jewish origin (Col. iv. 11, 14), a fact of great interest in relation to his writings. His name, a more familiar form of Lucanus (cf. Silas for Silvanus, Acts xvii. 4, 1 Thess. i. 1, and see *Encycl. Bibl.* s.v., for instances of Δουκᾶς on Egyptian inscriptions), taken together with his profession of physician (Col. iv. 14), suggests that he was son of a Greek freedman possibly connected with Lucania in south Italy; and as Julius Caesar gave Roman citizenship to all physicians in Rome (Sueton. *Jul.* 42), Luke may even have inherited this status from his father. But in any case such a man would have the attitude to things Roman which appears in the works attributed to Luke. He was a fellow-worker of Paul's when in Rome (Philemon 24), where he seems to have remained in constant attendance on his leader, as physician as well as attached friend (Col. iv. 14; 2 Tim. iv. 11). That Luke, before he became a Christian, was an adherent of the synagogue—not a full proselyte, but one of those "worshippers" of God to whom Acts makes frequent reference—is fairly certain from the familiarity with the Septuagint indicated in Acts, as well as from its sympathy with the Hellenistic type of piety as distinct from specific Paulinism, of which there is but little trace.

The earliest extra-biblical reference to him is perhaps in the Muratonian Canon, which implies that his name already stood in MSS. of both Gospel (probably so even in Marcion's day) and Acts, and says that Paul took him for his companion *quasi ut juris studiosum* ("as being a student of law"). Here *juris* is almost certainly corrupt; and whether we take the sense to have been "as being devoted to travel" (*ut juris* = *itineris*) or "as skilled in disease" (νόσου passing into νόμου in the Greek original), it is probably a mere inference from biblical data. Beyond references in Irenaeus, Clement of Alexandria (cf. Hebrews) and Tertullian, which add nothing to our knowledge, we have the belief to which Origen (*Hom.* i. *in Lucam*) witnesses as existing in his day, that Luke was the "brother" of 2 Cor. viii. 18, "whose praise in the Gospel" (as preached) was "throughout all the churches." Though the basis of the identification be a mistake, yet that this "brother," "who was also appointed by the churches (note the generality of this) to travel with us in the matter of the charity," was none other than Paul's constant companion Luke is quite likely; *e.g.* he seems to have been almost the only non-Macedonian (as demanded by 2 Cor. ix. 2-4) of Paul's circle available[1] at the time (see Acts xx. 4). Our next witness, a prologue to the Lucan writings (originally in Greek, now known only in Latin, see *Nov. Test. Latine* (Oxford), I. iii., II. i.), perhaps preserves a genuine tradition in stating that Luke died in Bithynia at the age of seventy-four. It is hard to see why this should be fiction, which usually took the form of martyrdom, as in a later tradition touching his end. The same prologue, and indeed all early tradition, connects him originally with Antioch (see Euseb. *Hist. Eccl.* iii. 4, 6, possibly after Julius Africanus in the first half of the 3rd century).

That he was actually a native of Antioch is as doubtful as the statement that he was a Syrian by race (Prologue). But internal evidence bears out the view that he practised his profession in Antioch, where (or in Tarsus) he probably first met Paul. Whether any of his information in Acts as to the Gospel in Antioch (xi. 19 ff., xiii. 1 ff., xiv. 26-xv. 35) was due to an Antiochene document used by him (cf. A. Harnack, *The Acts of the Apostles*, 245 ff.) or not, this knowledge in any case suggests Luke's connexion with that church. He shows, too, local knowledge on points unlikely to have stood in any such source (*e.g.* it was in Antioch that the name "Christians" was first coined, xi. 26), which points to his share in early Church life there. The Bezan reading in Acts xi. 27, "when *we* were assembled," may imply memory of this.

But while Luke probably met Paul in Antioch, and thence started with him on his second great missionary enterprise (xv. 36 ff.), partly at least as his medical attendant (cf. Gal. iv. 13), it is possible that he had also some special connexion with the north-eastern part of the Aegean. Sir W. M. Ramsay and others fancy that Luke's original home was Philippi, and that in fact he may have been the "certain Macedonian" seen in vision by Paul at Troas, inviting help for his countrymen (xvi. 9 f.). But this is as precarious as the view that, because "we" ceases at Philippi in xvi. 17, and then reemerges in xx. 6, Luke must have resided there during all the interval. The use and disuse of the first person plural, identifying Paul and his party, has probably a more subtle and psychological[2] meaning (see Acts). The local connexion in question may have been subsequent to that with Antioch, dating from his work with Paul in the province of Asia, and being resumed after Paul's martyrdom. This accords at once with Harnack's argument that Luke wrote Acts in Asia[3] (*Luke the Physician*, p. 149 ff.), and with the early tradition, above cited, that he died in Bithynia at the age of seventy-four, without ever having married (this touch may be due to an ascetic feeling current already in the 2nd century).

The later traditions about Luke's life are based on fanciful inference or misunderstanding, *e.g.* that he was one of the Seventy (Adamantius *Dial. de recta fide*, 4th century), or the story (in Theodorus Lector, 6th century) that he painted a portrait of the Virgin Mother. But a good deal can still be gathered by sympathetic study of his writings as to the manner of man he was. It was a beautiful soul from which came "the most beautiful book" ever written, as Renan styled his Gospel. The selection of stories which he gives us—especially in the section mainly peculiar to himself (ix. 51-xviii. 14)—reflects his own character as well as that of the source he mainly follows. His was indeed a *religio medici* in its pity for frail and suffering humanity, and in its sympathy with the triumph of the Divine "healing art" upon the bodies and souls of men (cf. Harnack, *The Acts*, *Excursus*, iii.). His was also a humane[4] spirit, a spirit so tender that it saw further than almost any save the Master himself into the soul of womanhood. In this, as in his joyousness, united with a feeling for the poor and suffering, he was an early Francis of Assisi. Luke, "the physician, the beloved physician," that was Paul's characterization of him; and it is the impression which his writings have left on humanity. How great his contribution to Christianity has been, in virtue of what he alone preserved of the historical Jesus and of the embodiment of his Gospel in his earliest followers, who can measure? Harnack even maintains (*The Acts*, p. 301) that his story of the Apostolic age was the indispensable condition for the incorporation of the Pauline epistles in the Church's canon of New Testament scriptures. Certainly his conception of the Gospel, viz. a Christian Hellenistic universalism (with some slight infusion of Pauline thought) passed through a Graeco-Roman mind, proved more easy of assimilation, and so more directly influential for the ancient Church, than Paul's own distinctive teaching (ib. 281 ff.; cf. *Luke the Physician*, pp. 139-145).

Literature.—Introductions to commentaries like A. Plummer's on Luke's Gospel in the "Intern. Crit." series, R. B. Rackham's *Acts of the Apostles* ("Oxford Comm."); the article "Luke" in Hastings's *Dict. of the Bible* and *Dict. of Christ and the Gospels*,

the *Encycl. Biblica* and Hauck's *Realencyklopädie*, vol. xi.; Sir W. M. Ramsay's *Paul the Traveller* and *Pauline and other Studies*, and A. Harnack's *Lukas der Arzt* (1906, Eng. trans. 1907) and *Die Apostelgeschichte* (1908, Eng. trans. 1909). For the Luke of legend, see authorities quoted under MARK.

(J. V. B.)

1 Tychicus may be the other "brother," in viii. 22.

2 So also A. Hilgenfeld, *Zeit. f. theol. Wissenschaft* (1907), p. 214, argues that "we" marks the author's wish to give his narrative more vividness at great turning-points of the story—the passage from Asia to Europe, and again the real beginning of the solemn progress of Paul towards the crisis in Jerusalem, as yet later towards Rome, xxvii. 1 ff.

3 Note that Luke is at pains to explain why Paul passed by Asia and Bithynia in the first instance (xvi. 6 f.).

4 Compare what A. W. Verrall has said of the poet Statius and "the gentle doctrine of humanity" on Hellenic soil, as embodied in his description of The Altar of Mercy at Athens (*Oxford and Cambridge Review*, i. 101 ff.).

LUKE, GOSPEL OF ST, the third of the four canonical Gospels of the Christian Church.

1. *Authorship and Date.*—The earliest indication which we possess of the belief that the author was Luke, the companion of the Apostle Paul (Col. iv. 14; Philem. 24; 2 Tim. iv. 11), is found in Justin Martyr, who, in his *Dialogue with Trypho* (*c.* 103), when making a statement found only in our Luke, instead of referring for it simply to the "Apostolic Memoirs," his usual formula, says that it is contained in the memoirs composed by "the Apostles and *those that followed them*." But the first distinct mention of Luke as the author of the Gospel is that by Irenaeus in his famous passage about the Four Gospels (*Adv. Haer.* III. i. 2, *c.* A.D. 180).

This tradition is important in spite of the fact that it first comes clearly before us in a writer belonging to the latter part of the 2nd century, because the prominence and fame of Luke were not such as would of themselves have led to his being singled out to have a Gospel attributed to him. The question of the authorship cannot, however, be decided without considering the internal evidence, the interpretation of which in the case of the Third Gospel and the Acts (the other writing attributed to Luke) is a matter of peculiar interest. It is generally admitted that the same person is the author of both works in their present form. This is intimated at the beginning of the second of them (Acts i. 1); and both are marked, broadly speaking throughout, though in some parts much more strongly than in others, by stylistic characteristics which we may conveniently call "Lucan" without making a premature assumption as to the authorship. The writer is more versed than any other New Testament writer except the author of the Epistle to the Hebrews, and very much more than most of them, in the literary Greek of the period of the rise of Christianity; and he has, also, like other writers, his favourite words, turns of expression and thoughts. The variations in the degree to which these appear in different passages are in the main to be accounted for by his having before him in many cases documents or oral reports, which he reproduces with only slight alterations in the language, while at other times he is writing freely.

We have next to observe that there are four sections in Acts (xvi. 9-17, xx. 4-16, xxi. 1-17, xxvii. 1-xxviii. 16) in which the first person plural is used. Now it is again generally admitted that in these sections we have the genuine account of one who was a member of Paul's company, who may well have been Luke. But it has been and is still held by many critics that the author of Acts is a different person, and that as in the Third Gospel he has used documents for the Life of Christ, and perhaps also in the earlier half of the Acts for the history of the beginnings of the Christian Church, so in the "we" sections, and possibly in some other portions of this narrative of Paul's missionary life, he has used a kind of travel-diary by one who accompanied the Apostle on some of his journeys. That neither this, nor any other, companion of Paul can have been the author of the whole work is supposed to follow both from its theological temper and from discrepancies between its statements and those of the Pauline Epistles on matters of fact. 119

A careful examination, however, of the "we" sections shows that words and expressions characteristic of the author of the third Gospel and the Acts are found in them to an extent which is very remarkable, and that in many instances they belong to the very texture of the passages. This linguistic evidence, which is of quite unusual force, has never yet been fairly faced by those who deny Luke's authorship of Acts. Moreover, the difficulties in the way of supposing that the author of Acts could at an earlier period of his life have been a companion of St Paul do not seem to be so serious as some critics think. Indeed it is easier to explain some of the differences between the Acts and St Paul's Epistles on this assumption than on that of authorship by a writer who would have felt more dependent upon the information which might be gathered from those Epistles, and who would have been more likely to have had a collection of them at hand, if his work was composed *c.* A.D. 100, as is commonly assumed by critics who reject the authorship by Luke.

There is then strong reason for believing the tradition that Luke, the companion of the Apostle Paul, was the author of our third Gospel and the Acts. Another argument in support of this belief, upon which much reliance has been placed, is found in the descriptions of diseases, and the words common in Greek medical writers, contained in these two works. These, it is said, point to the author's having been a physician, as Luke (Col. iv. 14) was (see esp. Hobart, *The Medical Language of St Luke*, 1882). The instances alleged are, many of them at least, not very distinctive. Yet they have some value as confirming the conclusion based on a comparison of the "we" sections of the Acts, with the remainder of the two books.

If we may assume that the writer who uses the first person plural in Acts xvi. 10 sqq. was the author of the two works, they can hardly have been composed later than A.D. 96; he would then have been about 65 years old, even if he was a very young man when he first joined the Apostle. An earlier date than A.D. 96 cannot be assigned if it is held that his writings show acquaintance with the *Antiquities of the Jewish People* by Josephus. The grounds for supposing this appear, however, to be wholly insufficient (see article on Acts by Bishop Lightfoot in 2nd ed. of Smith's *Dict. of Bible*, p. 39) and it is not easy to see why he should have deferred writing so long. On the other hand, a comparison of Luke xxi. 20-24 with Mark xiii. 14 seq. seems to show that in using his document Luke here mingled with the prophecy the interpretation which events had suggested and that the siege of Jerusalem in A.D. 70 and dispersion of its inhabitants had already taken place some little time before. *Circa* A.D. 80 may with probability be given as the time of the composition of his Gospel.

2. *Contents, Sources and Arrangement.*—In the preface to his Gospel, i. 1-4, Luke alludes to other Gospel-records which preceded his own. He does not say whether he made any use of them, but he seems to imply that his own was more complete. And this was true in regard to the two which, from a comparison of his Gospel with the other two Synoptics, we know that he did use. These we may call his Marcan and his Logian document. Luke also claims that he has written "in order." The instances in which he has departed from the Marcan order, and the manner in which he has introduced his additional matter into the Marcan outline, do not suggest the idea that he had any independent knowledge of an exact kind of the chronological sequence of events. By the phrase "in order" he may himself have intended chiefly to contrast the orderliness and consecutiveness of his account with the necessarily fragmentary character of the catechetical instruction which Theophilus had received. He may, also, have had in view the fact that he has prefixed a narrative of the birth and infancy of Jesus and of John and so begun the history at what he considered to be its true point of departure; to this he plainly alludes when he says

that he has "traced the course of all things accurately from the first." He may, also, in part be thinking of those indications which he—and he alone among the evangelists—has given of the points in the course of secular history at which Jesus was born and the Baptist began to preach (ii. 1-3, iii. 1, 2), though it may be doubted whether these are in all respects accurate.

Chap. i. 5-ii. 52. *The Birth and Infancy of John and of Jesus.*—This portion of the Gospel differs in style and character from all the remainder. Its source may be an Aramaic or a Hebrew document. Some critics, however, hold that it is wholly Luke's own composition, and that the Hebraic style—in which he was able to write in consequence of his familiarity with the LXX.—has been adopted by him as suitable to the subject in hand. Perhaps an intermediate view may be the most probable one; he may have obtained part of his materials, especially the hymns, from some source, and have skilfully worked these into his narrative.

Chap. iii. 1-iv. 13. *From the Commencement of the Preaching of the Baptist to the End of the Temptation in the Wilderness.*—The accounts of the Baptist's preaching and of the temptation are taken from the Logian document. The genealogy of Jesus here given is peculiar to this Gospel.

Chap. iv. 14-vi. 16 *From the Commencement of the Ministry of Jesus in Galilee to the Appointment of the Twelve.*—In the main Luke here follows his Marcan document. He has, however, independent narratives of the visit of Jesus to Nazareth (iv. 16-30) and the call of the first disciples (v. 1-11). The former, which in Mark is placed some way on in the Galilean ministry (vi. 1-6*a*), is given by Luke at the very beginning of it, perhaps because of the previous connexion of Jesus with Nazareth. But that it is not in its right position here, before any mention of the work in Capernaum, appears from verse 23. Luke has also slightly altered the position of the call of the first disciples in the sequence of events.

Chap. vi. 17-viii. 3.—This is an insertion into the Marcan outline of matter chiefly taken from the Logian document (the Address, Luke vi. 20-49, corresponds with portions of the Sermon on the Mount in Matt, v.-vii.; the healing of the centurion's servant, Luke vii. 1-10 = Matt. viii. 5-13; the message of the Baptist and the discourse for which it gave occasion, Luke vii. 18-35 = Matt. xi. 2-19). He includes besides, a few pieces peculiar to this Gospel which Luke had probably himself collected.

Chap. viii. 4-ix. 50. *From the Adoption of Parabolic Teaching to the End of the Ministry in Galilee.*—He begins again to follow his Marcan document for what he gives. Many sections, however, contained in the corresponding part of Mark have no parallel in Luke, while the parallel to one of them is placed later and differs considerably in form. Possibly this fact points to his Marcan document having been briefer than our Mark, and to its having afterwards received interpolations (see Mark, Gospel of St).

Chap. ix. 51-xviii. 14. *Incidents and Teaching connected with Journey towards Jerusalem.*—This is another insertion into the Marcan outline, much longer than the previous one, and consisting partly of matter taken from the Logian document (warnings to men who offer to become disciples, Luke ix. 57-60 = Matt. viii. 19-22; a mission-charge, Luke x. 2-16 = Matt. ix. 37 and x. 7-16, 40; thanksgiving that the Father reveals to the simple that which is hidden from the wise, Luke x. 21-24 = Matt. xi. 25-27 and xiii. 16, 17, &c., &c.) and partly of sections peculiar to Luke, about which the same remark may be made as before.

Chap. xviii. 15-xxii. 13. *From the Bringing of young Children to Jesus to the Preparation for the Passover.*—Luke again takes up his Marcan document, nearly at the point at which he left it, and follows it in the main, though he adds the story of Zacchaeus and the parable of the Minae (the Ten Pieces of Money), and omits the withering of the fig-tree and some matter at the end of the discourse on the Last Things, which are given in Mark.

Chap. xxii. 14 to end. *The Last Supper, Passion and Resurrection.*— Though in this portion of his Gospel signs of use of Mark are not wanting, he also has much that is peculiar to himself. It is supposed by some that he here made use of another document. It seems more likely that he had a good many distinct oral traditions for this part of the history and that he used them freely, sometimes substituting them for passages of the Marcan document, sometimes altering the latter in accordance therewith.

3. *Doctrinal, Ethical and Literary Characteristics.*—The thought of divine forgiveness, as set forth in the teaching of Jesus and manifested in His own attitude towards, and power over, the hearts of the outcasts among the people, is peculiarly prominent in this Gospel. This feature of Christ's ministry appears only in one passage of Mark; some other illustrations of it are mentioned in Matthew, but in Luke there are several more which are peculiar to himself (see the three individual cases vii. 36 sqq.; xix. 1 sqq., xxiii. 40 sqq.; also the description at xv. 1, and the three parables that follow). These were "lost sheep of the house of Israel"; but Christ's freedom from Jewish exclusiveness is also brought out (1) as regards Samaritans, by the rebuke administered to the disciples at ix. 52 sqq., the parable in x. 30 sqq., and the incident at xvii. 15-19; whereas they are not mentioned in Mark, and in Matthew only in the saying (x. 5) in which the Twelve are forbidden to enter any village of theirs; (2) as regards Gentiles, by the words of Jesus at iv. 25-27, not to mention sayings which have parallels in the other Gospels. The promises of Old Testament prophets that the Gentiles would share in the blessing of the coming of Christ are also recalled, ii. 32-iii. 6. Once more the word εὐαγγελίζεσθαι ("to proclaim good tidings") is a favourite one with Luke. These are all traits which we should expect to find in one who was a companion of Paul and a Gentile (Col. iv. 11, 14).

With the breadth and depth of the Saviour's sympathy, which are so fully exhibited in this Gospel, we may connect the clearness with which His true humanity is here portrayed. An incident of His boyhood is related in which His sense of vocation is revealed, and this is followed by the years of quiet growth that succeeded (ii. 41-52). Further, during the years of His public ministry more glimpses of His inner life are given us than in either Matthew or Mark. His being engaged in prayer is mentioned several times where there is no parallel in those Gospels (iii. 21, v. 16, vi. 12, ix. 18, 28, 29, xi. 1). Again, besides narrating the Temptation in the Wilderness and the Agony in the Garden, this evangelist gives a saying which implies that Jesus had undergone many temptations, or rather a life of temptation (xxii. 28). Once more he records a saying that shows Christ's sense of the intense painfulness of the work He was sent into the world to do, arising from the divisions which it caused (xii. 49 sqq.).

Among practical duties, the stress laid on that of almsgiving is remarkable (see especially xi. 41, xii. 33, xvi. 9 sqq., which are peculiar to this Gospel). In the second of these passages the disciples are exhorted to choose a life of voluntary poverty; the nearest parallel is the ideal set before the rich young man at Mark x. 21 = Matt. xix. 21 = Luke xviii. 22. In the Beatitudes in Luke vi. 20, 21 a condition of physical want is contemplated, not, as in Matt. v. 3, 6, poverty of spirit and spiritual hunger, while woes are denounced against the rich and the full (vi. 24, 25). The folly of absorption in the amassing and enjoyment of wealth is also shown (xii. 15 sqq. and xvi. 19 sqq.). But it would be an exaggeration to say, as some have done, that the poor are represented as being the heirs of a blessed hereafter, simply on the ground that they are now poor. In the Beatitudes Christ's own disciples are addressed, who were blessed *though* poor, whereas the rich as a class were opposed or indifferent to the kingdom of God. Again, the contrast between Lazarus and Dives in the future state pictures vividly the reversals that are in store; but it is unreasonable to take it as implying that every poor man, whatever his moral character, will be blessed.

But while there is in Luke's Gospel this strain of asceticism—as to many in modern times it will appear to be—the prevailing spirit is gentle and tender, and there is in it a note of spiritual gladness, which is begun by the song and the messages of angels and the hymns and rejoicing of holy men and women, accompanying the birth of the Christ (chaps. i. and ii., *passim*), and prolonged by the expressions of joy, the ascriptions of thanksgiving and praise, called forth by the words and works of Christ and the wonders of the cross and resurrection, which are peculiarly frequent and full (iv. 15, v. 25, 26, vii. 16, x. 17, xiii. 13, 17, xvii. 15-18, xviii. 43, xix. 6, 37, 38, xxiii. 47, xxiv. 41, 52, 53. Cf. also xv. 5, 7, 10, 32).

The peculiar charm which this Gospel has been generally felt to possess is largely due to the spiritual and ethical traits which have been noted. But from a purely literary point of view, also, it is distinguished by great excellences. The evangelist's phraseology is indeed affected to some extent by the rhetorical style of the period when he wrote. Nevertheless his mode of narration is simple and direct. And the many fascinating character-sketches, which he has added to the portrait gallery of

Scripture, are drawn clearly and without signs of effort. In some cases he has skilfully suggested parallelisms and contrasts. The chief instance is his careful interweaving of the accounts of the births and early years of John the Baptist and of Jesus. Later examples are the two sisters, Martha and Mary (x. 38-42), and the penitent and the impenitent thief (xxiii. 39-48). That he was a man of great versatility appears in the Acts from the speeches introduced on various occasions, if (as is probable) they were in part, at least, his own composition. In the Gospel he had no opportunity for showing his power in a manner strictly analogous. But if the hymns in the two introductory chapters owe even their Greek form in any measure to him, he was a poet of no mean order. His style varies greatly; at times, as in i. 1-4, it is Hellenistic; at others, as in i. 5 to end of ii., it is strongly Hebraic. Such differences are largely due, no doubt, to the degree in which he was in various parts independent of, or dependent upon, sources. But he would seem in some degree to have adapted his manner of writing to the subject-matter in hand. And at all events it is worthy of note that we pass without any sense of jar from passages in one style to those in another.

See Godet, *Commentaire sur l'évangile de S. Luc* (Eng. trans., 1875); Plummer's *Comm. on St Luke* (in international Series, 4th ed., 1906); W. Ramsay, *Was Christ born in Bethlehem?* (3rd ed., 1905); A. Harnack, *Lukas der Arzt* (1906); B. Weiss, *Die Quellen des Lukas-Evangeliums* (1907); also books on the Four Gospels, or the Synoptic Gospels, mentioned at end of article GOSPEL.

(V. H. S.)

LULEÅ, a seaport of Sweden, capital of the district (*län*) of Norrbotten, on the peninsula of Sandö, at the mouth of the Lule river and the north-west corner of the Gulf of Bothnia. Pop. (1900) 9484. It is connected at Boden (22 m. N.) with the main line of railway from Stockholm to Gellivara and Narvik on Ofoten Fjord in Norway. By this line Luleå is 723 m. N.N.E. of Stockholm. It is the shipping place for the iron ore mined at Gellivara, 127 m. N. by W., and there are smelting works at Karlsvik in the vicinity. Timber is also exported, being floated in large quantities down the Lule. As a rule the port is closed by ice from November to the end of May. The town was almost entirely burnt down in 1887, and its buildings are new—the church (1888-1893), the Norrbotten Museum and a technical school being the most important. Luleå as founded by Gustavus Adolphus was 7 m. higher up the river, but was moved to the present site in 1649.

LULL (or LULLY), RAIMON, or RAYMOND (*c.* 1235-1315), Catalan author, mystic and missionary, was born at Palma (Majorca). Inheriting the estate conferred upon his father for services rendered during the victorious expedition (1229) against the Balearic Islands, Lull was married at an early age to Bianca Picany, and, according to his own account, led a dissipated life till 1266 when, on five different occasions, he beheld the vision of Christ crucified. After his conversion, he resolved to devote himself to evangelical work among the heathen, to write an exposure of infidel errors, and to promote the teaching of foreign tongues in seminaries. He dedicated nine years to the study of Arabic, and in 1275 showed such signs of mental exaltation that, at the request of his wife and family, an official was appointed to administer his estate. He withdrew to Randa, there wrote his *Ars major* and *Ars generalis*, visited Montpellier, and persuaded the king of Majorca to build a Franciscan monastery at Miramar. There for ten years he acted as professor of Arabic and philosophy, and composed many controversial treatises. After a fruitless visit to Rome in 1285-1286, he journeyed to Paris, residing in that city from 1287 to 1289, and expounding his bewildering theories to auditors who regarded him as half insane. In 1289 he went to Montpellier, wrote his *Ars veritatis inventiva*, and removed to Genoa where he translated this treatise into Arabic. In 1291, after many timorous doubts and hesitations for which he bitterly blamed himself, Lull sailed for Tunis where he publicly preached Christianity for a year; he was finally imprisoned and expelled. In January 1293 he reached Naples where tradition alleges that he studied alchemy; there appears to be no foundation for this story, and the treatises on alchemy which bear his name are all apocryphal.[1] His efforts to interest Clement V. and Boniface VIII. in his favourite project of establishing missionary colleges were unavailing; but a visit to Paris in 1298 was attended with a certain measure of success. He was, however, disappointed in his main object, and in 1300 he sailed to Cyprus to seek support for his plan of teaching Oriental languages in universities and monasteries. He was rebuffed once more, but continued his campaign with undiminished energy. Between 1302 and 1305 he wrote treatises at Genoa, lectured at Paris, visited Lyons in the vain hope of enlisting the sympathies of Pope Clement V., crossed over to Bougie in Africa, preached the gospel, and was imprisoned there for six months. On being released he lectured with increasing effect at Paris, attended the General Council at Vienne in 1311, and there witnessed the nominal adoption of his cherished proposals. Though close on eighty years of age, Lull's ardour was unabated. He carried on his propaganda at Majorca, Paris, Montpellier and Messina, and in 1314 crossed over once more to Bougie. Here he resumed his crusade against Mahommedanism, raised the fanatical spirit of the inhabitants, was stoned outside the city walls and died of his wounds on the 29th of June 1315. There can be no reasonable doubt that these events actually occurred, but the scene is laid by one biographer at Tunis instead of Bougie.

The circumstances of Lull's death caused him to be regarded as a martyr, local patriotism helped to magnify his merits, and his fantastic doctrines found many enthusiastic partisans. The *doctor illuminatus* was venerated throughout Catalonia and afterwards throughout Spain, as a saint, a thinker and a poet; but his doctrines were disapproved by the powerful Dominican order, and in 1376 they were formally condemned in a papal bull issued at the instance of the inquisitor, Nicolas Emeric. The authenticity of this document was warmly disputed by Lull's followers, and the bull was annulled by Martin V. in 1417. The controversy was renewed in 1503 and again in 1578; but the general support of the Jesuits and the staunch fidelity of the Majorcans saved Lull from condemnation. His philosophical treatises abound with incoherent formulae to which, according to their inventor, every demonstration in every science may be reduced, and posterity has ratified Bacon's disdainful verdict on Lull's pretensions as a thinker; still the fact that he broke away from the scholastic system has recommended him to the historians of philosophy, and the subtle ingenuity of his dialectic has compelled the admiration of men so far apart in opinion as Giordano Bruno and Leibniz.

The speculations of Lull are now obsolete outside Majorca where his philosophy still flourishes, but his more purely literary writings are extremely curious and interesting. In *Blanquerna* (1283), a novel which describes a new Utopia, Lull renews the Platonic tradition and anticipates the methods of Sir Thomas More, Campanella and Harrington, and in the *Libre de Maravelles* (1286) he adopts the Oriental apologue from *Kalilah and Dimnah*. And as a poet Lull takes a prominent position in the history of Catalan literature; such pieces as *El Desconort* (1295) and *Lo Cant de Ramon* (1299) combine in a rare degree simple beauty of expression with sublimity of thought and impassioned sincerity.

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de la novela (Madrid, 1905), pp. 72-86; Havelock Ellis in *Contemporary Review* (May 1906).

(J. F.-K.)

1 The alchemical works ascribed to Lull, such as *Testamentum*, *Codicillus seu Testamentum* and *Experimenta*, are of early although uncertain date. De Luanco ascribes some of them to a Raimundo de Tárraga (*c.* 1370), a converted Jew who studied the occult. Others are ascribed by Morhof to a Raymundus Lullius Neophytus, who lived about 1440. See Alchemy, and also J. Ferguson, *Bibliotheca chemica* (1906).

LULLABY, a cradle-song, a song sung to children to "lull" them to sleep; the melody being styled in Fr. *berceuse* and in Ger. *Wiegenlied*. "Lull," cf. Swed. *lulla*, Du. *lullen*, &c., is of echoic or onomatopoeic origin, cf. Lat. *lallare*, to chatter.

LULLY, JEAN-BAPTISTE (*c.* 1633-1687), Italian composer, was born in Florence. Through the duc de Guise he entered the services of Madame de Montpensier as scullery-boy, and with the help of this lady his musical talents were cultivated. A scurrilous poem on his patroness resulted in his dismissal. He then studied the theory of music under Métra and entered the orchestra of the French court, being subsequently appointed director of music to Louis XIV. and director of the Paris opera. The influence of his music produced a radical revolution in the style of the dances of the court itself. Instead of the slow and stately movements which had prevailed until then, he introduced lively ballets of rapid rhythm. In December 1661 he was naturalized as a Frenchman, his original name being Giovanni Battista Lulli. In 1662 he was appointed music master to the royal family. In 1681 he was made a court secretary to the king and ennobled. While directing a *Te Deum* on the 8th of January 1687 with a rather long baton he injured his foot so seriously that a cancerous growth resulted which caused his death on the 22nd of March. Having found a congenial poet in Quinault, Lully composed twenty operas, which met with a most enthusiastic reception. Indeed he has good claim to be considered the founder of French opera, forsaking the Italian method of separate recitative and aria for a dramatic consolidation of the two and a quickened action of the story such as was more congenial to the taste of the French public. He effected important improvements in the composition of the orchestra, into which he introduced several new instruments. Lully enjoyed the friendship of Molière, for some of whose best plays he composed illustrative music. His *Miserere*, written for the funeral of the minister Sequier, is a work of genius; and very remarkable are also his minor sacred compositions. On his death-bed he wrote *Bisogna morire, peccatore*.

LUMBAGO, a term in medicine applied to a painful aliment affecting the muscles of the lower part of the back, generally regarded as of rheumatic origin. An attack of lumbago may occur alone, or be associated with rheumatism in other parts of the body. It usually comes on by a seizure, often sudden, of pain in one or both sides of the small of the back, of a severe cutting or stabbing character, greatly aggravated on movement of the body, especially in attempting to rise from the recumbent posture and also in the acts of drawing a deep breath, coughing or sneezing. So intense is the suffering that it is apt to suggest the existence of inflammation in some of the neighbouring internal organs, such as the kidneys, bowels, &c., but the absence of the symptoms specially characteristic of these latter complaints, or of any great constitutional disturbance beyond the pain, renders the diagnosis a matter of no great difficulty. Lumbago seems to be brought on by exposure to cold and damp, and by the other exciting causes of rheumatism. Sometimes it follows a strain of the muscles of the loins. The attack is in general of short duration, but occasionally it continues for a long time, as a feeling of soreness and stiffness on movement. The treatment includes that for rheumatic affections in general (see Rheumatism) and the application of local remedies to allay the pain.

LUMBER, a word now meaning (1) useless discarded furniture or other rubbish, particularly if of a bulky or heavy character; (2) timber, when roughly sawn or cut into logs or beams (see Timber); (3) as a verb, to make a loud rumbling noise, to move in a clumsy heavy way, also to burden with useless material, to encumber. "Lumber" and "lumber-house" were formerly used for a pawnbroker's shop, being in this sense a variant of "Lombard," a name familiar throughout Europe for a banker, money-changer or pawnbroker. This has frequently been taken to be the origin of the word in sense (1), the reference being to the store of unredeemed and unsaleable articles accumulating in pawnbrokers' shops. Skeat adopts this in preference to the connexion with "lumber" in sense (3), but thinks that the word may have been influenced by both sources (*Etym. Dict.*, 1910). This word is probably of Scandinavian origin, and is cognate with a Swedish dialect word *lomra*, meaning "to roar," a frequentative of *ljumma*, "to make a noise." The English word may be of native origin and merely onomatopoeic. The *New English Dictionary*, though admitting the probability of the association with "Lombard," prefers the second proposed derivation. The application of the word to timber is of American origin; the *New English Dictionary* quotes from *Suffolk* (Mass.) *Deeds* of 1662—"Freighted in Boston, with beames ... boards ... and other lumber."

LUMBINĪ, the name of the garden or grove in which Gotama, the Buddha, was born. It is first mentioned in a very ancient Pali ballad preserved in the *Sutta Nipāta* (verse 583). This is the *Song of Nalaka* (the Buddhist Simeon), and the words put in the mouth of the angels who announce the birth to him are: "The Wisdom-child, that jewel so precious, that cannot be matched, has been born at Lumbinī, in the Sākiya land, for weal and for joy in the world of men." The commentaries on the *Jātakas* (i. 52, 54), and on a parallel passage in the *Majjhima* (*J.R.A.S.*, 1895, p. 767), tell us that the mother of the future Buddha was on her way from Kapilavastu (Kapilavatthu), the capital of the Sākiyas, to her mother's home at Devadaha, the capital of the adjoining tribe, the Koliyas, to be confined there. Her pains came upon her on the way, and she turned aside into this grove, which lay not far from Devadaha, and gave birth there to her son. All later Buddhist accounts, whether Pali or Sanskrit, repeat the same story.

A collection of legends about Asoka, included in the *Divyāvadāna*, a work composed probably in the 1st or 2nd century A.D., tells us (pp. 389, 390) how Asoka, the Buddhist emperor, visited the traditional site of this grove, under the guidance of Upagupta. This must have been about 248 B.C. Upagupta (Tissa: see PALI) himself also mentions the site in his *Kathā Vatthu* (p. 559). The Chinese pilgrims, Fa Hien and Hsuan Tsang, visiting India in the 5th and 7th centuries A.D., were shown the site; and the latter (ed. Watters, ii. 15-19) mentions that he saw there an Asoka pillar, with a horse on the top, which had been split, when Hsuan Tsang saw it, by lightning. This pillar was rediscovered under the following circumstances.

The existence, a few miles beyond the Nepalese frontier, of an inscribed pillar had been known for some years when, in 1895, the discovery of another inscribed pillar at Niglīva, near by, led to the belief that this other, hitherto neglected, one must also be an Asoka pillar, and very probably the one mentioned by Hsuan Tsang. At the request of the Indian government the Nepalese government had the pillar, which was half-buried, excavated for examination; and Dr Führer, then in the employ of the Archaeological Survey, arrived soon afterwards at the spot.

The stone was split into two portions, apparently by lightning, and was inscribed with Pali characters as used in the time of Asoka. Squeezes of the inscription were sent to Europe, where various scholars discussed the meaning, which is as follows: "His Majesty, Piyadassi, came here in the 21st year of his reign and paid reverence. And on the ground that the Buddha, the Sākiya sage, was born here, he (the king) had a flawless stone cut, and put up a pillar. And further, since the Exalted One was born in it, he reduced taxation in the village of Lumbinī, and established the dues at one-eighth part (of the crop)."

The inscription, having been buried for so many centuries beneath the soil, is in perfect preservation. The letters, about an inch in height, have been clearly and deeply cut in the stone. No one of them is doubtful. But two words are new, and scholars are not agreed in their interpretation of them. These are the adjective *vigaḍabhī* applied to the stone, and rendered in our translation "flawless"; and secondly, the last word, rendered in our translation "one-eighth part (of the crop)." Fortunately these words are of minor importance for the historical value of this priceless document. The date, the twenty-first year after the formal coronation of Asoka, would be 248 B.C. The name Piyadassi is the official epithet always used by Asoka in his inscriptions when speaking of himself. The inscription confirms in every respect the Buddhist story, and makes it certain that, at the time when it was put up, the tradition now handed down in the books was current at the spot. Any further inference that the birth really took place there is matter of probability on which opinions will differ.

The grove is situate about 3 m. north of Bhagwanpur, the chief town of a district of the same name in the extreme south of Nepal, just over the frontier dividing Nepal from the district of Basti in British territory. It is now called Rummin-dei, *i.e.* the shrine of the goddess of Rummin, a name no doubt derived from the ancient name Lumbinī. There is a small shrine at the spot, containing a bas-relief representing the birth of the Buddha. But the Buddha is now forgotten there, and the bas-relief is reverenced only for the figure of the mother, who has been turned into a tutelary deity of the place. Except so far as the excavation of the pillar is concerned the site has not been explored, and four small stupas there (already noticed by Hsuan Tsang) have not been opened.

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(T. W. R. D.)

LUMP-SUCKER, or LUMP-FISH (*Cyclopterus lumpus*), a marine fish, which with another British genus (*Liparis*) and a few other genera forms a small family (Cyclopteridae). Like many littoral fishes of other families, the lump-suckers have the ventral fins united into a circular concave disk, which, acting as a sucker, enables them to attach themselves firmly to rocks or stones. The body (properly so called) is short and thick, with a thick and scaleless skin, covered with rough tubercles, the larger of which are arranged in four series along each side of the body. The first dorsal fin is almost entirely concealed by the skin, appearing merely as a lump on the back. The lump-sucker inhabits the coasts of both sides of the North Atlantic; it is not rare on the British coasts, but becomes more common farther north. It is so sluggish in its habits that individuals have been caught with sea-weed growing on their backs. In the spring the fish approaches the shores to spawn, clearing out a hollow on a stony bottom in which it deposits an immense quantity of pink-coloured ova. Fishermen assert that the male watches the spawn until the young are hatched, a statement which receives confirmation from the fact that the allied gobies, or at least some of them, take similar care of their progeny. The vernacular name, "cock and hen paddle," given to the lump-fish on some parts of the coast, is probably expressive of the difference between the two sexes in their outward appearance, the male being only half or one-third the size of the female, and assuming during the spawning season a bright blue coloration, with red on the lower parts. This fish is generally not esteemed as food, but Franz Faber (*Fische Islands*, p. 53) states that the Icelanders consider the flesh of the male as a delicacy.[1] The bones are so soft, and contain so little inorganic matter, that the old ichthyologists placed the lump-sucker among the cartilaginous fishes.

1 The "cock-padle" was formerly esteemed also in Scotland, and figures in the *Antiquary*, chap. xi.

LUMSDEN, SIR HARRY BURNETT (1821-1896), Anglo-Indian soldier, son of Colonel Thomas Lumsden, C.B., was born on the 12th of November 1821. He joined the 59th Bengal Native Infantry in 1838, was present at the forcing of the

Khyber Pass in 1842, and went through the first and second Sikh wars, being wounded at Sobraon. Having become assistant to Sir Henry Lawrence at Lahore in 1846, he was appointed in 1847 to raise the Corps of Guides. The object of this corps, composed of horse and foot, was to provide trustworthy men to act as guides to troops in the field, and also to collect intelligence beyond as well as within the North-West frontier of India. The regiment was located at Mardan on the Peshawar border, and has become one of the most famous in the Indian army. For the equipment of this corps, Lumsden originated the *khaki* uniform. In 1857 he was sent on a mission to Kandahar with his younger brother, Sir Peter Lumsden, in connexion with the subsidy paid by the Indian government to the amir, and was in Afghanistan throughout the Mutiny. He took part in the Waziri Expedition of 1860, was in command of the Hyderabad Contingent from 1862, and left India in 1869. He became lieutenant-general in 1875, and died on the 12th of August 1896.

See Sir Peter Lumsden and George Elsmie, *Lumsden of the Guides* (1899).

LUNA, ÁLVARO DE (d. 1453), Constable of Castile, Grand Master of Santiago, and favourite of King John II. of Castile, was the natural son of Álvaro de Luna, a Castilian noble. He was introduced to the court as a page by his uncle Pedro de Luna, archbishop of Toledo, in 1410. Álvaro soon secured a commanding influence over John II., then a mere boy. During the regency of the king's uncle Ferdinand, which ended in 1412, he was not allowed to be more than a servant. When, however, Ferdinand was elected king of Aragon, and the regency remained in the hands of the king's mother, Constance, daughter of John of Gaunt, a foolish and dissolute woman, Álvaro became a very important person. The young king regarded him with an affection which the superstition of the time attributed to witchcraft. As the king was surrounded by greedy and unscrupulous nobles, among whom his cousins, the sons of Ferdinand, commonly known as the Infantes (princes) of Aragon, were perhaps the worst, his reliance on a favourite who had every motive to be loyal to him is quite intelligible. Álvaro too was a master of all the accomplishments the king admired—a fine horseman, a skilful lance and a writer of court verse. Until he lost the king's protection he was the central figure of the Castilian history of the time. It was a period of constant conflict conducted by shifting coalitions of the nobles, who under pretence of freeing the king from the undue influence of his favourite were intent on making a puppet of him for their own ends. The part which Álvaro de Luna played has been diversely judged. To Mariana he appears as a mere self-seeking favourite. To others he has seemed to be a loyal servant of the king who endeavoured to enforce the authority of the crown, which in Castile was the only alternative to anarchy. He fought for his own hand, but his supremacy was certainly better than the rule of gangs of plundering nobles. His story is in the main one of expulsions from the court by victorious factions, and of his return when his conquerors fell out among themselves. Thus in 1427 he was solemnly expelled by a coalition of the nobles, only to be recalled in the following year. In 1431 he endeavoured to employ the restless nobles in a war for the conquest of Granada. Some successes were gained, but a consistent policy was impossible with a rebellious aristocracy and a king of indolent character. In 1445 the faction of the nobles allied with Álvaro's main enemies, the Infantes de Aragon, were beaten at Olmedo, and the favourite, who had been constable of Castile and count of Santestéban since 1423, became Grand Master of the military order of Santiago by election of the Knights. His power appeared to be thoroughly established. It was, however, based on the personal affection of the king. The king's second wife, Isabella of Portugal, was offended at the immense influence of the constable, and urged her husband to free himself from slavery to his favourite. In 1453 the king succumbed, Álvaro was arrested, tried and condemned by a process which was a mere parody of justice, and executed at Valladolid on the 2nd of June 1453.

The *Chronicle of Álvaro de Luna* (Madrid, 1784), written by some loyal follower who survived him, is a panegyric and largely a romance. The other contemporary authority—the *Chronicle of John II.*—is much less favourable to the constable. Don Jose Quintana has summarized the two chronicles in his life of Luna in the *Vidas de Españoles célebres; Biblioteca de Aulores Españoles* (Madrid, 1846-1880), vol. xix.

LUNA (mod. *Lunî*), an ancient city of Etruria, Italy, 4½ m. S.E. of the modern Sarzana. It was the frontier town of Etruria, on the left bank of the river, Macra, the boundary in imperial times between Etruria and Liguria. When the Romans first appeared in these parts, however, the Ligurians were in possession of the territory as far as Pisa. It derived its importance mainly from its harbour, which was the gulf now known as the Gulf of Spezia, and not merely the estuary of the Macra as some authors have supposed. The town was apparently not established until 177 B.C., when a colony was founded here, though the harbour is mentioned by Ennius, who sailed hence for Sardinia in 205 B.C. under Manlius Torquatus. An inscription of 155 B.C., found in the forum of Luna in 1857, was dedicated to M. Claudius Marcellus in honour of his triumph over the Ligurians and Apuani. It lost much of its importance under the Empire, though traversed by the coast road (Via Aurelia), and it was renowned for the marble from the neighbouring mountains of Carrara, which bore the name of Luna marble. Pliny speaks of the quarries as only recently discovered in his day. Good wine was also produced. There are some remains of the Roman period on the site, and a theatre and an amphitheatre may be distinguished. No Etruscan remains have come to light. O. Cuntz's investigations (*Jahreshefte des Österr. Arch. Instituts*, 1904, 46) seem to lead to the conclusion that an ancient road crossed the Apennines from it, following the line of the modern road (more or less that of the modern railway from Sarzana to Parma), and dividing near Pontremoli, one branch going to Borgotaro, Veleia and Placentia, and the other over the Cisa pass to Forum Novum (Fornovo) and Parma. The town was destroyed by the Arabs in 1016, and the episcopal see transferred to Sarzana in 1204.

See G. Dennis, *Cities and Cemeteries of Etruria* (London, 1883), ii. 63.

(T. As.)

LUNATION, the period of return of the moon (*luna*) to the same position relative to the sun; for example, from full moon to full moon. Its duration is 29.5305884 days.

LUNAVADA, a native state in India, in the Gujarat division of Bombay. Area, 388 sq. m.; pop. (1901) 63,967, showing a decrease of 28% in the decade, due to famine. The chief, whose title is maharana, is a Rajput of high lineage. Estimated revenue, £12,000; tribute, £1000. The capital is Lunavada town, said to have been founded in 1434; pop. (1901) 10,277.

LUNCHEON, in present usage the name given to a meal between breakfast and tea or dinner. When dinner was taken at an early hour, or when it is still the principal midday meal, luncheon was and is still a light repast. The derivation of the word has been obscured, chiefly owing to the attempted connexion with "nuncheon," with which the word has nothing to do etymologically. "Luncheon" is an extended form of "lunch" (another form of "lump," as "hunch" is of "hump"). Lunch and luncheon in the earliest meanings found are applied to a thick piece of bread, bacon, meat, &c.

> The word "nuncheon," or "nunchion," with which "luncheon" has been frequently connected, appears as early as the 14th century in the form *noneschenche*. This meant a refreshment or distribution, properly of drink, but also accompanied with some small quantity of meat, taken in the early afternoon. The word means literally "noon-drink," from none or noon, *i.e. nona hora*, the ninth hour, originally 3 o'clock P.M., but later "midday"—the church office of "nones," and also the second meal of the day, having been shifted back—and *schenchen*, to pour out; cf. German *schenken*, which means to retail drink and to give, present. *Schenche* is the same as "shank," the shin-bone, and the sense development appears to be shin-bone, pipe, hence tap for drawing liquor. See also Skeat, *Etymological Dict. of English Language* (1910), s.v. "nunchion."

LUND, TROELS FREDERIK (1840-), Danish historian, was born in Copenhagen on the 5th of September 1840. He entered the university of Copenhagen in 1858. About the age of thirty he took a post which brought before his notice the treasures of the archives of Denmark. His first important work, *Historiske Skitser*, did not appear until 1876, but after that time his activity was stupendous. In 1879 was published the first volume of his *Danmarks og Norges Historie i Slutningen af det xvi. Aarhundrede*, a history of daily life in Denmark and Norway at the close of the 16th century. Troels Lund was the pioneer of the remarkable generation of young historians who came forward in northern Europe about 1880, and he remained the most original and conspicuous of them. Saying very little about kings, armies and governments, he concentrates his attention on the life, death, employments, pleasures and prejudices of the ordinary men and women of the age with which he deals, using to illustrate his theme a vast body of documents previously neglected by the official historian. Lund was appointed historiographer-royal to the king of Denmark and comptroller of the Order of the Dannebrog. There was probably no living man to whom the destruction of the archives, when Christiansborg Castle was accidentally burned in 1884, was so acute a matter of distress. But his favourite and peculiar province, the MSS. of the 16th century, was happily not involved in that calamity.

LUND, a city of Sweden, the seat of a bishop, in the district (*län*) of Malmöhus, 10 m. N.E. of Malmö by rail. Pop. (1900) 16,621. A university was founded here in 1668 by Charles XI., with faculties of law, medicine, theology and philosophy. The number of students ranges from 600 to 800, and there are about 50 professors. Its library of books and MSS. is entitled to receive a copy of every work printed in Sweden. Important buildings include the university hall (1882), the academic union of the students (1851) containing an art museum; the astronomical observatory, built in 1866, though observations have been carried on since 1760; the botanical museum, and ethnographical and industrial art collections, illustrating life in southern Sweden from early times. Each student belongs to one of twelve nations (*landskap*), which mainly comprises students from a particular part of the country. The Romanesque cathedral was founded about the middle of the 10th century. The crypt under the raised transept and choir is one of the largest in the world, and the church is one of the finest in Scandinavia. A statue of the poet Esaias Tegner stands in the Tegners Plads, and the house in which he lived from 1813 to 1826 is indicated by an inscribed stone slab. The chief industries are sugar-refining, iron and brick works, and the manufacture of furniture and gloves.

Lund (*Londinum Gothorum*), the "Lunda at Eyrarsund" of Egil's Saga, was of importance in Egil's time (*c.* 920). It appears that, if not actually a seaport, it was at least nearer the Sound than now. In the middle of the 11th century it was made a bishopric, and in 1103 the seat of an archbishop who received primatial rank over all Scandinavia in 1163, but in 1536 Lund was reduced to a bishopric. Close to the town, at the hill of Sliparabacke, the Danish kings used to receive the homage of the princes of Skare, and a monument records a victory of Charles XI. over the Danes (1676), which extinguished the Danish claim to suzerainty over this district.

LUNDY, BENJAMIN (1789-1839), American philanthropist, prominent in the anti-slavery conflict, was born of Quaker parentage, at Hardwick, Warren county, New Jersey, on the 4th of January 1789. As a boy he worked on his father's farm, attending school for only brief periods, and in 1808-1812 he lived at Wheeling, Virginia (now W. Va.), where he served an apprenticeship to a saddler, and where—Wheeling being an important headquarters of the inter-State slave trade—he first became deeply impressed with the iniquity of the institution of slavery, and determined to devote his life to the cause of

abolition. In 1815, while living at Saint Clairsville, Ohio, he organized an anti-slavery association, known as the "Union Humane Society," which within a few months had a membership of more than five hundred men. For a short time he assisted Charles Osborne in editing the *Philanthropist*; in 1819 he went to St Louis, Missouri, and there in 1810-1820 took an active part in the slavery controversy; and in 1821 he founded at Mount Pleasant, Ohio, an anti-slavery paper, the *Genius of Universal Emancipation*. This periodical, first a monthly and later a weekly, was published successively in Ohio, Tennessee, Maryland, the District of Columbia and Pennsylvania, though it appeared irregularly, and at times, when Lundy was away on lecturing tours, was issued from any office that was accessible to him. From September 1829 until March 1830 Lundy was assisted in the editorship of the paper by William Lloyd Garrison (*q.v.*). Besides travelling through many states of the United States to deliver anti-slavery lectures, Lundy visited Haiti twice—in 1825 and 1829, the Wilberforce colony of freedmen and refugee slaves in Canada in 1830-1831, and in 1832 and again in 1833 Texas, all these visits being made, in part, to find a suitable place outside the United States to which emancipated slaves might be sent. Between 1820 and 1830, according to a statement made by Lundy himself, he travelled "more than 5000 m. on foot and 20,000 in other ways, visited nineteen states of the Union, and held more than 200 public meetings." He was bitterly denounced by slaveholders and also by such non-slaveholders as disapproved of all anti-slavery agitation, and in January 1827 he was assaulted and seriously injured by a slave-trader, Austin Woolfolk, whom he had severely criticized in his paper. In 1836-1838 Lundy edited in Philadelphia a new anti-slavery weekly, *The National Enquirer*, which he had founded, and which under the editorship of John G. Whittier, Lundy's successor, became *The Pennsylvania Freeman*. In 1838 Lundy removed to Lowell, La Salle county, Illinois, where he printed several copies of the *Genius of Universal Emancipation*. There, on the 22nd of August 1839, he died. Lundy is said to have been the first to deliver anti-slavery lectures in the United States.

See *The Life, Travels and Opinions of Benjamin Lundy* (Philadelphia, 1847), compiled (by Thomas Earle) "under the direction and on behalf of his children."

LUNDY, ROBERT (fl. 1689), governor of Londonderry. Nothing is known of Lundy's parentage or early life; but he had seen service in the foreign wars before 1688, when he was at Dublin with the rank of lieutenant-colonel in the regiment of Lord Mountjoy. When the apprentices of Derry closed the gates in the face of the earl of Antrim, who was approaching the city at the head of an Irish Catholic force in the interests of James II., the viceroy Tyrconnel despatched Mountjoy to pacify the Protestants. Mountjoy and his regiment were well received in the north, and the citizens of Derry permitted him to leave within their walls a small Protestant garrison under the command of Lundy, who assumed the title of governor. Popular feeling in Derry ran so strongly in favour of the prince of Orange that Lundy quickly declared himself an adherent of William; and he obtained from him a commission confirming his appointment as governor. Whether Lundy was a deliberate traitor to the cause he had embraced with explicit asseveration of fidelity in a signed document, or whether, as Macaulay suggests, he was only a cowardly poltroon, cannot certainly be known. What is certain is that from the moment Londonderry was menaced by the troops of King James, Lundy used all his endeavours to paralyse the defence of the city. In April 1689 he was in command of a force of Protestants who encountered some troops under Richard Hamilton at Strabane, when, instead of holding his ground, he told his men that all was lost and ordered them to shift for themselves; he himself was the first to take flight back to Derry. King James, then at Omagh on his way to the north, similarly turned in flight towards Dublin on hearing of the skirmish, but returned next day on receiving the true account of the occurrence. On the 14th of April English ships appeared in the Foyle with reinforcements for Lundy under Colonel Cunningham. Lundy dissuaded Cunningham from landing his regiments, representing that a defence of Londonderry was hopeless; and that he himself intended to withdraw secretly from the city. At the same time he sent to the enemy's headquarters a promise to surrender the city at the first summons. As soon as this became known to the citizens Lundy's life was in danger, and he was vehemently accused of treachery. When the enemy appeared before the walls Lundy gave orders that there should be no firing. But all authority had passed out of his hands. The people flew to arms under the direction of Major Henry Baker and Captain Adam Murray, who organized the famous defence in conjunction with the Rev. George Walker (*q.v.*). Lundy, to avoid popular vengeance, hid himself until nightfall, when by the connivance of Walker and Murray he made his escape in disguise. He was apprehended in Scotland and sent to the Tower of London. He was excluded from the Act of Indemnity in 1690, but his subsequent fate is unknown.

See Lord Macaulay, *History of England*, vol. iii. (Albany edition of complete works, London, 1898); Rev. George Walker, *A True Account of the Siege of Londonderry* (London, 1689); J. Mackenzie, *Narrative of the Siege of Londonderry* (London, 1690); John Hempton, *The Siege and History of Londonderry* (Londonderry, 1861); Rev. John Graham, *A History of the Siege of Derry and Defence of Enniskillen, 1688-9* (Dublin, 1829).

(R. J. M.)

LUNDY, an English island at the entrance of the Bristol Channel, 12 m. N.W. by N. of the nearest point on the mainland, namely Hartland Point on the Devonshire coast. The nearest ports are Clovelly and Bideford. The extreme length of the island is 3 m. from N. to S., the mean breadth about half a mile, but at the south the breadth is nearly 1 m. The area is about 1150 acres. The component rock is a hard granite, except at the south, where slate occurs. This granite was used in the construction of the Victoria Embankment, London. An extreme elevation of about 450 ft. is found in the southern half of the island; the northern sloping gently to the sea, but the greater part of the coast is cliff-bound and very beautiful. The landing, at the south-east, is sheltered by the small Rat Island, where the once common black rat survives. There are a few prehistoric remains on Lundy, and the foundations of an ancient chapel of St Helen. There are also ruins, and the still inhabited keep, of Marisco Castle, occupying a strong precipitous site on the south-east, held in the reign of Henry II. by Sir Jordan de Marisco. The Mariscos, in their inaccessible retreat, lived lawlessly until in 1242 Sir William Marisco was hanged for instigating an attempt on the life of Henry III. In 1625 the island was reported to be captured by Turkish pirates, and in 1633 by Spaniards. Later it became an object of attack and a hiding place for French privateers. The island, which is reckoned as extra-parochial, has some cultivable land and heath pasture, and had a population in 1901 of 94.

LÜNEBURG, a town of Germany, in the Prussian province of Hanover, situated near the foot of a small hill named the

Kalkberg, on the navigable Ilmenau, 14 m. above its confluence with the Elbe and 30 m. by rail S.E. of Hamburg by the main line to Hanover. Pop. (1905) 26,751. Numerous handsome medieval buildings testify to its former prosperity as a prominent member of the Hanseatic league, and its many quaint houses with high gables and overhanging eaves have gained for it the appellation “the Nüremberg of the North.” Portions of the old walls survive, but the greater part of the former circumvallation has been converted into promenades and gardens, outside which a modern town has sprung up. The finest of its squares are the market-place and the so-called Sand. The churches of St John, with five aisles and a spire 375 ft. in height; of St Michael, containing the tombs of the former princes of Lüneburg, and of St Nicolas, with a huge nave and a lofty spire, are fine Gothic edifices of the 14th and 15th centuries. The old town-hall in the market square is a huge pile, dating originally from the 13th century, but with numerous additions. It has an arcade with frescoes, restored by modern Munich artists, and contains a magnificent hall—the Fürstensaal—richly decorated with wood-carving and stained-glass windows. Galvanoplastic casts of the famous Lüneburg silver plate, consisting of 36 pieces which were acquired in 1874 by the Prussian government for £33,000 and are now housed in the art museum in Berlin, are exhibited here. Among other public edifices are the old palace; the convent of St Michael (now converted into a school and law court), and the Kaufhaus (merchants’ hall). There are a museum, a library of 36,000 volumes, classical and commercial schools, and a teachers’ seminary. Lüneburg owes its importance chiefly to the gypsum and lime quarries of the Kalkberg, which afford the materials for its cement works, and to the productive salt-spring at its base which has been known and used since the 10th century. Hence the ancient saying which, grouping with these the commercial facilities afforded by the bridge over the Ilmenau, ascribes the prosperity of Lüneburg to its *mons, fons, pons*. Other industries are the making of chemicals, ironware, soda and haircloth. There is a considerable trade in French wines, for which Lüneburg has for centuries been one of the chief emporia in north Germany, and also in grain and wool. Celebrated are its lampreys, *Lüneburger Bricken*.

Lüneburg existed in the days of Charlemagne, but it did not gain importance until after the erection of a convent and a castle on the Kalkberg in the 10th century. After the destruction of Bardowiek, then the chief commercial centre of North Germany, by Henry the Lion, duke of Saxony, in 1189, Lüneburg inherited much of its trade and subsequently became one of the principal towns of the Hanseatic league. Having belonged to the extensive duchy of Saxony it was the capital of the duchy of Brunswick-Lüneburg from 1235 to 1369; later it belonged to one or other of the branches of the family of Brunswick, being involved in the quarrels, and giving its name to cadet lines, of this house. From the junior line of Brunswick-Lüneburg the reigning family of Great Britain is descended. The reformed doctrines were introduced into the town in 1530 and it suffered heavily during the Thirty Years’ War. It reached the height of its prosperity in the 15th century, and in the 17th century it was the depot for much of the merchandise exported from Saxony and Bavaria to the mouth of the Elbe; then after a period of decay the 19th century witnessed a revival of its prosperity. In 1813 the German war of liberation was begun by an engagement with the French near Lüneburg.

See W. F. Volger, *Urkundenbuch der Stadt Lüneburg* (3 vols., Lüneburg, 1872-1877); E. Bodemann, *Die älteren Zunfturkunden der Stadt Lüneburg* (Hanover, 1883); O. Jürgens, *Geschichte der Stadt Lüneburg* (Lüneburg, 1891); *Des Propstes Jakob Schomaker Lüneburger Chronik*, edited by T. Meyer (Hanover, 1904); A. Wrede, *Die Einführung der Reformation in Lüneburg* (Göttingen, 1887), and W. Reinecke, *Lüneburgs ältestes Stadtbuch und Verfasstungsregister* (Hanover, 1903). For the history of the principality see von Leuthe, *Archiv für Geschichte und Verfassung des Fürstentums Lüneburg* (Celle, 1854-1863).

LÜNEBURGER HEIDE, a district of Germany, in the Prussian province of Hanover, lying between the Aller and the Elbe and intersected by the railways Harburg-Hanover and Bremen-Stendal. Its main character is that of a broad saddle-back, running for 55 m. from S.E. to N.W. of a mean elevation of about 250 ft. and attaining its greatest height in the Wilseder Berg (550 ft.) at its northern end. The soil is quartz sand and is chiefly covered with heather and brushwood. In the north, and in the deep valleys through which the streams descend to the plain, there are extensive forests of oak, birch and beech, and in the south, of fir and larch. Though the climate is raw and good soil rare, the heath is not unfertile. Its main products are sheep—the celebrated Heidschnucken breed,—potatoes, bilberries, cranberries and honey. The district is also remarkable for the numerous Hun barrows found scattered throughout its whole extent.

See Rabe, *Die Lüneburger Heide und die Bewirthschaftung der Heidhöfe* (Jena, 1900); Kniep, *Führer durch die Lüneburger Heide* (Hanover, 1900); Linde, *Die Lüneburger Heide* (Lüneburg, 1905), and Kück, *Das alte Bauernleben der Lüneburger Heide* (Leipzig, 1906).

LUNETTE (French diminutive of *lune*, moon), a crescent-shaped, semi-circular object. The term is particularly applied in architecture to a circular opening at the intersection of vaulting by a smaller vault, as in a ceiling for the entrance of light or in the lower stories of towers for the passage of bells. It is also used of a panel space of semi-circular shape, filled by a fresco or other decorative treatment. In fortification a “lunette” was originally an earthwork of half-moon shape; later it became a redan with short flanks, in trace somewhat resembling a bastion standing by itself without curtains on either side. The gorge was generally open.

LUNÉVILLE, an industrial and garrison town of north-eastern France, capital of an arrondissement in the department of Meurthe-et-Moselle, 21 m. E.S.E. of Nancy on the railway to Strassburg. Pop. (1906) town, 19,199; commune, 24,266 (including troops). The town stands on the right bank of the Meurthe between that river and its affluent the Vezouze, a little above their confluence. Its château, designed early in the 18th century by the royal architect Germain Boffrand, was the favourite residence of Duke Leopold of Lorraine, where he gathered round him an academy composed of eminent men of the district. It is now a cavalry barracks, and the gardens form a public promenade. Lunéville is an important cavalry station with a large riding school. The church of St Jacques with its two domed towers dates from 1730-1745. There are statues of General Count Antoine de Lasalle, and of the Conventional Abbé Henri Grégoire. The town is the seat of a sub-prefect, and has a tribunal of first instance and a communal college. It carries on cotton-spinning and the manufacture of railway material,

motor vehicles, porcelain, toys, hosiery, embroidery, straw-hats and gloves. Trade is in grain, wine, tobacco, hops and other agricultural produce.

The name of Lunéville (*Lunae villa*) is perhaps derived from an ancient cult of Diana, the moon goddess, a sacred fountain and medals with the effigy of this goddess having been found at Leormont, some 2 m. E. of the town. Lunéville belonged to Austrasia, and after various changes fell, in 1344, to the house of Lorraine. A walled town in the middle ages, it suffered in the Thirty Years' War and in the campaigns of Louis XIV. from war, plague and famine. The town flourished again under Dukes Leopold and Stanislas, on the death of the latter of whom, which took place at Lunéville, Lorraine was united to France (1766). The treaty of Lunéville between France and Austria (1801) confirmed the former power in the possession of the left bank of the Rhine.

LUNG, in anatomy, the name of each of the pair of organs of respiration in man and other air-breathing animals, the corresponding organs in fishes being the *branchiae* or gills (see Respiratory System). The word in Old English was *lungen*; it appears in many Teutonic languages, cf. Ger. *Lunge*, Du. *long*, Swed. *lunga*; the Teutonic root from which these are derived meant "light," and the lungs were so-called from their lightness. The word "lights" was formerly used as synonymous with "lungs," but is now confined to the lungs of sheep, pigs or cattle; it is etymologically connected with "lung," the pre-Teutonic root being seen in Sansk. *laghu*, Gr. ἐλαφρός.

Surgery of the Lung and Pleura.—When a person meets with a severe injury to the chest, as from a wheel passing over him, the ribs may be broken and driven into the lung. Air then entering into the pleural space, the lung collapses, and breathing becomes so difficult that death may ensue from asphyxia. Short of this, however, there is a cough with the spitting of frothy, blood-stained mucus or of bright red blood. All that can be done is to place the person on his back, slightly propped up by pillows, and to combat syncope by subcutaneous injections of ether and strychnia.

Empyema means the presence of an abscess between the lung and the chest wall, *i.e.* in the pleural space; it is the result of a septic inflammation of the pleura by the micro-organisms of pneumonia or of typhoid fever, or by some other germs. As the abscess increases in size, the lung is pushed towards the spine, and that side of the chest gives a dull note on percussion. If much fluid collects the heart may be pushed out of its place, and, the lung-space being taken up, respiration is embarrassed. Having made sure of the presence of an abscess by exploring with syringe and hollow needle, the surgeon opens and drains it. The drainage is made more effectual by removing an inch or so of one of the ribs, for, unless this is done, there is a risk of the rubber drainage tube being compressed as the ribs come closer together again.

The lung itself has sometimes to be operated on, as when it is the seat of an hydatid cyst, or when it contains an abscess cavity which cannot otherwise be drained, or when it becomes necessary to remove a foreign body the exact situation of which has been revealed by the X-rays. Portions of some of the ribs having been resected, the pleural cavity is opened, and if the lung has not already become glued to the chest-wall by inflammatory adhesions, it is stitched up to the chest-wall, and in a few days, when adhesions have taken place, an incision is safely made into the lung-tissue. See also Respiratory System.

(E. O.*)

LUNG, one of the four symbolical creatures of Chinese legend. It is a dragon with a scaly snake-like body, long claws, horns, a bristly face, and its back-bone armed with spikes. Originally three-clawed, it has become, as the official dragon of the present dynasty, a five-clawed beast. The form is embroidered on the state robes of the emperor of China, and it is traditionally connected with the dynasty's history and fortunes.

LUNGCHOW, a town in the province of Kwangsi, China, in 22° 21′ N., 106° 45′ E., near the Tongking frontier, and at the junction of the Sung-chi and Kao-ping rivers. Pop. (estimate) 22,000. The town is prettily situated in a circular valley. From a military point of view it is considered important, and considerable bodies of troops are stationed here. It was selected as the seat of frontier trade by the French convention of 1886, and was opened in 1889. In 1898 the total value of its trade amounted to only £20,000, but in 1904 the figures increased to £56,692.

LUNGE, GEORG (1839-), German chemist, was born at Breslau on the 15th of September 1839. He studied at Heidelberg (under R. W. Bunsen) and Breslau, graduating at the latter university in 1859. Turning his attention to technical chemistry, he became chemist at several works both in Germany and England, and in 1876 he was appointed professor of technical chemistry at Zürich polytechnic. Lunge's original contributions cover a very wide field, dealing both with technical processes and analysis. In addition, he was a voluminous writer, enriching scientific literature with many standard works. His treatises *Coal Tar and Ammonia* (5th ed. 1909; 1st ed. 1867), *Destillation des Steinkohlentheers* and *Sulphuric Acid and Alkali* (1st ed. 1878, 4th ed. 1909), established his position as the highest authority on these subjects, while the *Chemische-technische Untersuchungs-Methoden* (1899-1900; Eng. trans.), to which he contributed, testified to his researches in technical analysis. His jubilee was celebrated at Zürich on the 15th of September 1909.

LUPERCALIA, a very ancient, possibly pre-Roman, pastoral festival in honour of Lupercus. Its rites were under the superintendence of a corporation of priests called Luperci,[1] whose institution is attributed either to the Arcadian Evander, or to Romulus and Remus. In front of the Porta Romana, on the western side of the Palatine hill, close to the Ficus Ruminalis and the Casa Romuli, was the cave of Lupercus; in it, according to the legend, the she-wolf had suckled the twins, and the bronze wolf, which is still preserved in the Capitol, was placed in it in 296 B.C. But the festival itself, which was held on February 15th, contains no reference to the Romulus legend, which is probably later in origin, though earlier than the grecizing Evander legend. The festival began with the sacrifice by the Luperci (or the flamen dialis) of goats and a dog; after which two of the Luperci were led to the altar, their foreheads were touched with a bloody knife, and the blood wiped off with wool dipped in milk; then the ritual required that the two young men should laugh. The smearing of the forehead with blood probably refers to human sacrifice originally practised at the festival. The sacrificial feast followed, after which the Luperci cut thongs from the skins of the victims and ran in two bands round the walls of the old Palatine city, the line of which was marked with stones, striking the people who crowded near. A blow from the thong prevented sterility in women. These thongs were called *februa*, the festival Februatio, and the day *dies februatus* (*februare* = to purify); hence the name of the month February, the last of the old Roman year. The object of the festival was, by expiation and purification, to secure the fruitfulness of the land, the increase of the flocks and the prosperity of the whole people. The Lupercal (cave of Lupercus), which had fallen into a state of decay, was rebuilt by Augustus; the celebration of the festival had been maintained, as we know from the famous occurrence of it in 44 B.C. It survived until A.D. 494, when it was changed by Gelasius into the feast of the Purification. Lupercus, in whose honour the festival was held, is identified with Faunus or Inuus, Evander (Εὔανδρος), in the Greek legend being a translation of Faunus (the "kindly"). The Luperci were divided into two *collegia*, called Quinctiliani (or Quinctiales) and Fabiani, from the gens Quinctilia (or Quinctia)[2] and Fabia; at the head of each of these colleges was a magister. In 44 B.C. a third college, Luperci Julii, was instituted in honour of Julius Caesar, the first magister of which was Mark Antony. In imperial times the members were usually of equestrian standing.

See Marquardt, *Römische Staatsverwaltung*, iii. (1885) p. 438; W. Warde Fowler, *Roman Festivals* (1899), p. 390 foll., and article in Smith's *Dictionary of Greek and Roman Antiquities* (3rd ed. 1891).

1 Many derivations are suggested, but it seems most probable that Luperci simply means "wolves" (the last part of the word exhibiting a similar formation to *nov-erca*), the name having its origin in the primitive worship of the wolf as a wolf-god.

2 Mommsen considers the Quinctia to be the older gens, and the Quinctilia a later introduction from Alba.

LUPINE (*Lupinus*), in botany, a genus of about 100 species of annual and perennial herbaceous plants of the tribe *Genisteae*, of the order Leguminosae. Species with digitate leaves range along the west side of America from British Columbia to northern Chile, while a few occur in the Mediterranean regions. A few others with entire leaves are found in Brazil and eastern North America. The leaves are remarkable for "sleeping" in three different ways. From being in the form of a horizontal star by day, the leaflets either fall and form a hollow cone with their bases upwards (*L. pilosus*), or rise and the cone is inverted (*L. luteus*), or else the shorter leaflets fall and the longer rise, and so together form a vertical star as in many species; the object in every case being to protect the surfaces of the leaflets from radiation and consequent wetting with dew (Darwin, *Movements of Plants*, p. 340). The flowers are of the usual "papilionaceous" or pea-like form, blue, white, purple or yellow, in long terminal spikes. The stamens are monadelphous and bear dimorphic anthers. The species of which earliest mention is made is probably *L. Termis*, which was cultivated by the ancient Egyptians. It is wild in some parts of the Mediterranean area and is extensively cultivated in Egypt. Its seeds are eaten by the poor after being steeped in water to remove their bitterness; the stems furnish fuel and charcoal for gunpowder. The lupine of the ancient Greeks and Romans was probably *L. albus*, which is still extensively cultivated in Italy, Sicily and other Mediterranean countries for forage, for ploughing in to enrich the land, and for its round flat seeds, which form an article of food. Yellow lupine (*L. luteus*) and blue lupine (*L. angustifolius*) are also cultivated on the European continent as farm crops for green manuring.

Lupines are easily cultivated in moderately good garden soil; they include annuals which are among the most ornamental and most easily grown of summer flowering plants (sow in open borders in April and May), and perennials, which are grown from seed or propagated by dividing strong plants in March and April. Many of the forms in cultivation are hybrid. One of the best known of the perennial species is *L. polyphyllus*, a western North American species. It grows from 3 to 6 ft. high, and has numerous varieties, including a charming white-flowered one. The tree lupine (*L. arboreus*) is a Californian bush, 2 to 4 ft. high, with fragrant yellow flowers. It is only hardy in the most favoured parts of the kingdom.

LUPUS, PUBLIUS RUTILIUS, Roman rhetorician, flourished during the reign of Tiberius. He was the author of a treatise on the figures of speech (Σχήματα λέξεως), abridged from a similar work by the rhetorician Gorgias (of Athens, not the well-known sophist of Leontini), the tutor of Cicero's son. In its present form it is incomplete, as is clearly shown by the express testimony of Quintilian (*Instit.* ix. 2, 103, 106) that Lupus also dealt with figures of sense, rhetorical figures (Σχήματα διανοίας). The work is valuable chiefly as containing a number of examples, well translated into Latin, from the lost works of Greek rhetoricians. The author has been identified with the Lupus mentioned in the Ovidian catalogue of poets (*Ex Ponto*, iv. 16), and was perhaps the son of the Publius Rutilius Lupus, who was a strong supporter of Pompey.

Editions by D. Ruhnken (1768), F. Jacob (1837), C. Halm in *Rhetores latini minores* (1863); see also monographs by G. Dzialas (1860 and 1869), C. Schmidt (1865), J. Draheim (1874), Thilo Krieg (1896).

LUPUS (Lat. *lupus*, wolf), a disease characterized by the formation in the skin or mucous membrane of small tubercles or

nodules consisting of cell growth which has an inclination to retrograde change, leading to ulceration and destruction of the tissues, and, if it heals, to the subsequent formation of permanent white scars. *Lupus vulgaris* is most commonly seen in early life, and occurs chiefly on the face, about the nose, cheeks or ears. But it may also affect the body or limbs. It first shows itself as small, slightly prominent, nodules covered with thin crusts or scabs. These may be absorbed and removed at one point whilst spreading at another. Their disappearance is followed by a permanent white cicatrix. The disease may be superficial, in which case both the ulceration and the resulting scar are slight (*lupus non-exedens*); or the ulcerative process may be deep and extensive, destroying a large portion of the nose or cheek, and leaving much disfigurement (*lupus exedens*). A milder form, *lupus erythematosus*, occurs on the nose and adjacent portions of the cheeks in the form of red patches covered with thin scales, underneath which are seen the widened openings of the sebaceous ducts. With a longitudinal patch on the nose and spreading symmetrical patches on each cheek the appearance is usually that of a large butterfly. It is slow in disappearing, but does not leave a scar. Lupus is more frequently seen in women than in men; it is connected with a tuberculous constitution. In the superficial variety the application of soothing ointments when there is much redness, and linear incisions, or scrapings with a sharp spoon, to destroy the increased blood supply, are often serviceable. In the ordinary form the local treatment is to remove the new tissue growth by solid points of caustic thrust into the tubercles to break them up, or by scraping with a sharp spoon. The light-treatment has been successfully applied in recent years. As medicines, cod-liver oil, iron and arsenic are useful.

(E. O.*)

LUQMĀN, or Lokman, the name of two, if not of three (cf. note to Terminal Essay in Sir Rd. Burton's translation of the *Arabian Nights*), persons famous in Arabian tradition. The one was of the family of ʿĀd, and is said to have built the great dike of Mārib and to have received the gift of life as long as that of seven vultures, each of which lived eighty years. The name of the seventh vulture—Lubad—occurs in proverbial literature. The name of the second Luqmān, called "Luqmān the Sage," occurs in the Koran (31, 11). Two accounts of him are current in Arabian literature. According to Masʿūdī (i. 110) he was a Nubian freedman who lived in the time of David in the district of Elah and Midian. According to some commentators on the Koran (*e.g.*, Baidāwī) he was the son of Bāʿūrā, one of the sons of Job's sister or maternal aunt. Derenbourg in his *Fables de Loqmân le sage* (1850) identifies Bāʿūrā with Beoi, and believes the name Luqmān to be a translation of *Balaam*. The grave of *Luqmān* was shown on the east coast of the lake of Tiberias, also in Yemen (cf. Yāqūt, vol. iii. p. 512).

The so-called *Fables of Luqmān* are known to have existed in the 13th century, but are not mentioned by any Arabian writer. They were edited by Erpenius (Leiden, 1615) and have been reprinted many times. For the relation of these to similar literature in other lands, see J. Jacobs's edition of Caxton's *Fables of Aesop*, vol. i. (London, 1889). The name of Luqmān also occurs in many old verses, anecdotes and proverbs; cf. G. Freytag's *Arabum Proverbia* (Bonn, 1838-1843) and such Arabian writers as Tabarī, Masʿūdī, Damīrī and the *Kitāb al-Muʿammarīn* (ed. by I. Goldziher, Leiden, 1899).

(G. W. T.)

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