

identical with those given in the college were first offered to women students. The foundation of the women's department, since known as Barnard College, dates from a memorial presented to the trustees of the university in 1888, although Dr. Barnard did not live to see the full realization of his hopes and plans. Another Columbia department owing its inception to his persistent recommendations was the Teachers' College, afterward such an important adjunct to higher education. Dr. Barnard was a constant and voluminous writer on physics, astronomy, metrology and politics, principally in the form of papers contributed to the publications of learned societies and the current reviews. From 1872 he was editor-in-chief of "Johnson's Encyclopedia," to which he contributed many important articles. He was U. S. commissioner to the Paris exposition in 1867 and to the international industrial exposition, Vienna, being a member on both occasions of committees on instruments of precision and apparatus of the exact sciences, and rendering services recognized by the award of officership of the Legion of Honor of France in 1873. His memberships in learned societies were many, including the American Association for the Advancement of Science, of which he was repeatedly president; the National Academy of Sciences, of which he was corresponding secretary; American Academy of Arts and Sciences; American Philosophical Society; American Microscopical Society and American Geographical Society. He was a member of the board of experts of the U. S. bureau of mines; an honorary member of the Sociedade Auxiliadora da Industria Nacional of Brazil, and a corresponding member of the Royal Society of Liège, Belgium. Dr. Barnard was the recipient of many honorary degrees, including S.T.D. from the University of Mississippi; LL.D. from Yale University and Jefferson College; L.H.D. from the regents of the University of the State of New York, and D.C.L. from Kings College, Canada. He was justly rated among the leading scientists of America during his lifetime. His knowledge of several distinct branches was profound, and his published writings were accepted as authoritative. In addition to his great learning, he was a preeminent executive and organizer, the real founder of the greater Columbia University whose beginnings were contemporaneous with his accession to the presidential office. He assumed control of a college numbering no more than 150 undergraduates, and left a well-organized university providing educational advantages for over 2,000. He continued his labors until the beginning of his eightieth year, resigning from the presidency in May, 1888, completing twenty-four years of brilliant service. Dr. Barnard was married in 1849 to Margaret McMurray, a native of Ohio. He died in New York city, April 27, 1889, leaving his library and the bulk of his personal fortune to Columbia University.

LOW, Seth, ninth president of Columbia College, (1890-1901), was born in Brooklyn, N. Y., Jan. 18, 1850, son of Abiel Abbot and Ellen Almira (Dow) Low. His earliest American ancestor was Thomas Low, believed to have been a native of Suffolk, England, who settled at Ipswich and Chebaco, Mass., about 1636. From him the line of descent runs through Thomas and Martha (Boreman) Low; David and Mary (Lamb) Low; David, 2d, and Susanah Low; David, 3d, and Abigail (Choate) Low; David, 4th, and Hannah (Haskell) Low; Seth and Mary (Porter) Low, grandparents of Seth Low. Abiel Abbot Low, his father, was a

prominent importer and owner of a large fleet of clipper ships engaged in the China trade and was president of the New York Chamber of Commerce. Seth Low received his early education in the Brooklyn Polytechnic Institute and in Columbia College, where he was graduated A.B. in 1870. His college career was notable, both in scholarship and in athletics, evoking the tribute of Dr. F. A. P. Barnard, then president of Columbia: "the first scholar in college and the most manly young fellow we have had here in many a year." During his last year in college, he attended lectures in the Columbia Law School, but discontinued the course on accepting employment in his father's establishment. After occupying in turn several important clerical positions, he was admitted to partnership in his father's business in 1875, and subsequently was senior partner, until the dissolution of the firm, in 1887. In the New York Chamber of Commerce he served frequently on important committees, and was its president, in 1914. He organized, in 1878, and became first president of the Brooklyn Bureau of Charities, one of the earliest bodies formed to promote cooperation and prevent waste and imposition in charity service. About the same time, his activity in the politics of the old Fourteenth ward of Brooklyn resulted in forming the Young Republican Club, of which he was the first president. In 1881 he was independent candidate for the mayoralty of his native city and was elected by a large majority, and after a highly successful administration, was reelected in 1883. His endeavors to purify the city government by introducing the method of civil service examinations for municipal offices and other needed reforms won him an enviable national reputation. Besides the establishment of the merit system in the subordinate courts of the city service, the chief results of his administration were the reform of the tax collection system, the extension and improvement of the schools, the development of bridge facilities, and the improvement of public works. At the end of his second term as mayor he spent several years in travel and study abroad, everywhere receiving distinguished recognition as one of America's leading citizens. In 1890 he was elected to succeed Dr. Barnard as president of Columbia College, and although he had never been an educator in the technical or professional sense, he entered at once upon an administration that was both brilliant and memorable. From the beginning, his object was to instil new life into the venerable institution, and to bring it in all departments to modern standards. His business experience enabled him to manage its affairs with admirable prudence and judgment, while he furthered his plans for improvement, and added to the prosperity of the institution by personal gifts and by donations obtained through his influence. The several departments affiliated with the college, and controlled by their own faculties, were organically united and placed under the control of a university council created for the purpose. By an act dated March 24, 1891, the College of Physicians and Surgeons was made an organic part of the corporation. In the meantime, the rapid development of all departments rendered the old buildings on Madison Avenue far too contracted, and the plan of removing to the upper part of Manhattan island began to be seriously agitated. In 1892 a building committee reported favorably on the site of the Bloomingdale Asylum for the Insane on the heights of Morningside Park, which was valued at \$2,000,000. President Low secured the payment of this

amount by 1894, and the work of preparing buildings for occupancy at an early date was begun. He himself donated \$1,000,000 for the construction of a new library building. While directing the affairs of Columbia, Dr. Low continued to command recognition as a prominent figure in public life. In 1899 Pres. McKinley appointed him a delegate to the peace conference at The Hague. Upon being elected mayor of New York city in 1901 on a ticket representing thorough municipal reform, he resigned the presidency of Columbia. During the two years as mayor he achieved a remarkable record for constructive work in all departments of the government. He declined a renomination, although repeatedly urged to serve again. He continued as a member of the board of trustees of Columbia until July, 1914, when he completed thirty-two years of service. In 1913 he was arbitrator in the difficulties between the eastern railroads and the conductors' and trainmen's unions and, in November, 1914, Pres. Wilson appointed him a member of the Colorado Coal Commission, to investigate the coal strike of that year. In the New York state constitutional convention of 1915, he was a delegate-at-large and chairman of the committee on cities. In this period he was president of the New York chamber of commerce and of the National Civic Federation, chairman of the board of trustees of Tuskegee Institute, president of the Bedford Farmers' Cooperative Association and a trustee of the Carnegie Institution. In recognition of his long and valuable public services, he received the honorary degree of LL.D. from Amherst College in 1889; from Harvard, Trinity, the University of Pennsylvania and the University of the State of New York in 1890; Princeton, in 1896; Yale, in 1901, and the University of Edinburgh, in 1910. He was a member of the Archaeological Institute of America (president), the Geographical Society of New York, the New York Academy of Sciences, the New York Academy of Political Science, the New England Society and the Society of Mayflower Descendants. His career is a noble example of talents well employed and of resources well expended. Dr. Low was married, Dec. 9, 1880, to Annie Wroe Scollay, daughter of Judge Benjamin Robbins of the U. S. supreme court, and died without issue at his country residence in Bedford Hills, N. Y., Sept. 17, 1916.

BAKER, George Hall, librarian of Columbia College, was born at Ashfield, Mass., Apr. 23, 1850. He fitted for college at Williston Seminary, Easthampton, Mass.; was graduated at Amherst College in 1874, and spent the following year in postgraduate study in that institution. The following two years and a half he spent in travel and study in Europe, mainly at the University of Berlin, devoting particular attention to history and public law. During these years special attention was paid to the study of modern European languages, with most of which Mr. Baker was conversant. After his return to America, he resided for some time near Boston, where he was engaged in teaching, writing, and study. Early in 1883 he joined the editorial staff occupied on the "Century Dictionary" in New York, and continued there until, in August, 1883, when he accepted appointment as assistant librarian of Columbia College Library. In this position, with special charge of the reference work and the department of buying, he remained until 1888, when he became acting librarian and then, in 1889, librarian-in-chief. Under Mr. Baker's administration the number of volumes in the library was much more than doubled, and the col-

lection was almost entirely recatalogued and largely rearranged. During the years 1885 to 1889 Mr. Baker was lecturer in the School of Political Science in Columbia College on the bibliography of history and political science. Mr. Baker died in New York city, Mar. 27, 1911.

MOFFAT, David Halliday, financier and railroad president, was born in Washingtonville, Orange co., N. Y., July 22, 1839, son of David H. and Katherine (Gregg) Moffat. He was educated in the public schools and under private instructors, and at the age of fifteen began his active career as messenger in the New York Exchange Bank. Such a position at that period involved duties both arduous and responsible; he discharged them so efficiently that within twelve months he was promoted to clerk and assistant teller. A year later he went to Des Moines, Ia., where he became teller in the banking firm of A. J. Stevens & Co., and in 1855 he was made cashier of the Bank of Nebraska at Omaha. He conducted the affairs of the institution with such success that, when the proprietor of the bank retired from active business four years later, Mr. Moffat carried the bank through the process of liquidation, paying creditors dollar for dollar, and dividing the surplus equitably among the stockholders. In 1860 Mr. Moffat joined the procession of emigrants to Colorado. At the famous frontier outfitting point, St. Joe, he formed a partnership with C. C. Woolworth, a book and stationery merchant, and they purchased six teams of mules and wagons which were packed with a stock of books and stationery and a full complement of provisions. Arriving in Denver, Colo., the partners opened a store under the firm name of Woolworth & Moffat, in the business center of the settlement, and it soon became one of the leading mercantile establishments of the place. Later the post office was located in the firm's store, and Mr. Moffat acted as assistant postmaster; he was also local agent of the Western Union Telegraph Co. The business prospered greatly, and it is significant of his exceptional business ability that the only loss sustained during a term of years resulted from an Indian attack in which a train of supplies was destroyed in transit. In 1866 he accepted the position of cashier of the First National Bank of Denver, of which he became president in 1880, and during his connection with this institution saw it grow from comparatively small dimensions to one of the most important banks between Chicago and San Francisco, with deposits aggregating more than \$23,000,000. The First National Bank of Denver claims seniority over all other national banks in Colorado and is the parent of numerous smaller banks throughout the state. It has been the source of assistance in every public emergency. To it railroad companies trace their source; mines of gold, silver and coal have been opened through its agency; and by its loans the waters of mountain lakes and melting snows have been conveyed to Colorado's arid lands, converting them into fertile fields. In 1879 Mr. Moffat became actively engaged in mining operations. Forming a partnership with Jerome B. Chaffee he purchased an interest in the Little Pittsburgh Consolidated, and was elected its vice-president. The firm was interested also in the Caribou mine, near Boulder, the Breece Iron Mine and the Henrietta in Leadville, and mines in Aspen, Cripple Creek and Creede. Besides their mining interests he and Mr. Chaffee owned thousands of acres of land, part of which was valuable city property. In 1869, in cooperation with Ex-Gov. John Evans, Mr. Moffat built the Denver Pacific railroad, con-