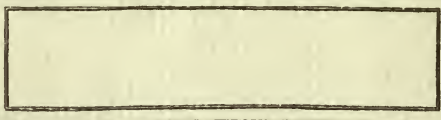


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BIOGRAPHICAL RECORD

CLASSES 68 S TO 72 S



UNIVERSITY OF
CALIFORNIA

BIOGRAPHICAL RECORD

CLASSES FROM EIGHTEEN HUNDRED
AND SIXTY-EIGHT TO EIGHTEEN
HUNDRED AND SEVENTY-TWO OF
THE SHEFFIELD SCIENTIFIC SCHOOL

PUBLISHED BY THE
CLASS SECRETARIES BUREAU
YALE UNIVERSITY
1910

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FOREWORD

The publication of this volume has been made possible by Henry B. Sargent, Secretary of the Class of '71 S., who undertook its financial responsibility and contributed helpful advice and consultation throughout its preparation. The bulk of the expense has been met by subscriptions in response to Mr. Sargent's letter.

The biographies are for the most part based upon data originally gathered under the direction of Charles H. Sherrill, '89, of the Yale Association of Class Secretaries, by Charles C. Brown, '03 S. As each sketch prepared from this material has been submitted to its subject or some member of his family for revision and addition, and dates and statements have been carefully verified by official records where possible, the biographies may be regarded as substantially accurate. The work of preparing, editing, and publishing the material has been performed by the Class Secretaries Bureau, the new alumni office which in 1910 was established by the Yale Association of Class Secretaries with University support.

This book may naturally give an impetus to the feeling of Class unity and Yale loyalty among the members of the Classes of 1868 S. to 1872 S., and make them more interested in their fellows and their achievements. It is, however, scarcely to be sup-

posed that a second volume of their lives will ever be published. At best such publications are infrequent. But there is a channel ready at hand for the publication of *current* biographies, a continuous record, which grows with the men whom it describes. That record is the *Yale Alumni Weekly*, which combines the permanence of archives with the interest of contemporaneous news. Each member of the Sheffield Classes here chronicled might well make a point of sending to this graduate paper the news of the marriage of his daughter, the election of himself to the secretaryship of a learned society, his political or business associations, a change of residence or of the many details of his life, small in themselves but interesting to his classmates and friends, and valuable in adding to the already very complete histories of Yale graduates. In this way the biographical record of these Classes, started in this volume, would grow with their subjects and would increase in interest and value as the lives of the individual members mature.

EDWIN ROGERS EMBREE,

Director Class Secretaries Bureau.

New Haven, December 1, 1910.

ROLL OF THE CLASSES

ROLL OF THE CLASSES

1868 S TO 1872 S

Following is a list of the graduate members of the classes from 1868 to 1872 of the Sheffield Scientific School, with their business or professional connections and latest addresses. The asterisk is used in this list and throughout this volume to indicate death. An alphabetical index to the biographies will be found on the last pages of the book.

CLASS OF '68 S.

- Wellington Miles Andrew, *farmer*, Orange, Conn.
Leonard Strong Austin, *professor*, Houghton, Mich.
*George Franklin Bailey. *1896.
Samuel Atkins Barbour, *mining engineer*, Melrose, Mont.
Frederick Converse Beach, *publisher and editor*, Stratford, Conn.
*James deTrafford Blackstone, *manufacturer*. *1898.
*Eugene Stuart Bristol, *manufacturer and banker*. *1910.
Albert Gardiner Clark, LL. D., *lawyer*, 1612 Pennsylvania Avenue, Denver, Colo.
*Henry Marchant Dudley, *pharmacist*. *1896.
Henry Turner Eddy, B. A. Yale 1867, Ph. D., LL. D., *professor*, 916 Sixth Street S. E., Minneapolis, Minn.
Barton Darlington Evans, *chief clerk*, Department of Fisheries, Harrisburg, Pa.
Edward Forsyth Finney, *real estate dealer*, 1335 Washington Avenue, St. Louis, Mo.
*James Fowler. *1892.
*Frank Morton Guthrie, *railroad agent*. *1900.
*John Corey Hersey, *clerk*, Naval Office, United States Custom House, New York City. *1909.
*George Anson Jackson, M. A. Yale 1887, *clergyman*. *1907.
*Joseph Scott McKell, *merchant*. *1910.
Charles Kinney Needham, C. E. Yale 1869, *engineer*, New Albany, Ind.
Frederick George Noonan, 434 Jackson Street, Milwaukee, Wis.
Lyman Bradley Parshall, *stock raiser*, Canton, Jackson County, Iowa.
William Wallace Redfield, *mechanical engineer*, retired, 2637 Portland Avenue, Minneapolis, Minn.

Alexander Renick, *banker*, 65 East Fourth Street, Chillicothe, Ohio.

*Joseph Perkins Rockwell, *civil engineer*. *1885.

*Lewis Bridge Stone. *1871.

*Samuel Swift, M. D. Columbia 1872, *physician*. *1896.

Henry Shaler Williams, Ph. D. Yale 1871, *professor*, Ithaca, N. Y.

Roll of Class of '68 S., 26; living, 14.

CLASS OF '69 S.

*William Greene Abbot, *insurance*. *1889.

William Richardson Belknap, *manufacturer*, West Ormsby Avenue, Louisville, Ky.

Roman Augustus Bissell, *engineer and manufacturer*, retired, 174 Fort Street, Detroit, Mich.

Charles Augustus Brinley, *manufacturer*, 247 South Sixteenth Street, Philadelphia, Pa.

Francis Dudley Buck, M. D. Columbia 1876, *physician*, 158 West Forty-eighth Street, New York City.

Andrew Dwight Chidsey, *banker*, Easton, Pa.

*Clarence Marcellus Clarke, *civil engineer*. *1890.

Frederick Smillie Curtis, *instructor*, Brookfield Center, Conn.

Augustus Jay DuBois, C. E. Yale 1870, Ph. D. Yale 1873, *professor*, 334 Edwards Street, New Haven, Conn.

Joseph Robinson Folsom, Salt Lake City, Utah.

Albert Banks Hill, C. E. Yale 1870, *civil engineer*, 295 Crown Street, New Haven, Conn.

*Joseph Courten Hornblower, *architect*. *1908.

Nelson Powell Hulst, B. A. Yale 1867, Ph. D. Yale 1870, *mining engineer*, retired, 300 Knapp Street, Milwaukee, Wis.

*Edward Whiting Johnson, *banker*. *1878.

Joseph Goodhue Kendall.

*Charles Byron Koon, *engineer*. *1885.

Houston Lowe, *manufacturer*, Dayton, Ohio.

Henry Hoyt Perry, *banker and insurance agent*, Southport, Conn.

Charles Henry Pope, *manufacturer and real estate agent*, 925 Seventeenth Street, Moline, Ill.

Joseph John Skinner, C. E. Yale 1874, Ph. D. Yale 1876, *teacher*, retired, Oneida, N. Y.

Robert Schuyler Van Rensselaer, *surveyor*, Punxsutawney, Pa.

Charles Alvah Weed, *manufacturer*, 66 Chenango Street, Binghamton, N. Y.

- William Robert White, 1529 Pine Street, Philadelphia, Pa.
 Horace Franklin Whitman, *manufacturer*, 3801 Walnut Street, Philadelphia, Pa.
 Willard Wendell Wight, *civil engineer and surveyor*, Wellesley Hills, Mass.
 Frederick Everett Willits, *farmer, banker and insurance agent*, Glen Cove, N. Y.
 Roll of Class of '69 S., 26; living, 21.

CLASS OF '70 S.

- x James Whitin Abbott, B. A. Yale 1868, M. A. Yale 1871, *mining engineer*, Pioche, Nev.
 Henry Moore Bailey, *banker*, 2109 Nebraska Street, Sioux City, Iowa.
 x Charles Thruston Ballard, *flour manufacturer*, Glenview, Jefferson County, Ky.
 Thomas Gray Bennett, *manufacturer*, 423 Prospect Street, New Haven, Conn.
 Townshend Stith Brandegee, *botanist*, Berkeley, Cal.
 Daniel Seymour Brinsmade, *manufacturer*, Derby, Conn.
 x Charles Peter Brooks, *civil and mining engineer*, 280 A Street, Salt Lake City, Utah.
 x Thomas Elwood Calvert, *engineer*, 209 Adams Street, Chicago, Ill.
 x *Frederic Hosea Churchill, LL. B. Harvard 1875, *electrician*. *1881.
 Dorr Clarke, *ranchman*, retired, Green Bay, Wis.
 x Alfred Ronald Conkling, LL. B. Columbia 1879, *lawyer*, 41 East Sixtieth Street, New York City.
 x Justus Herbert Grant, *engineer*, 78 South Goodman Street, Rochester, N. Y.
 Charles Sheldon Hastings, Ph. D. 1873, *professor*, 248 Bradley Street, New Haven, Conn.
 x *William Alfred Hinds, *editor and publisher*. *1910.
 x *Edward VanBuren Hoes, *banker and coal dealer*. *1904.
 William Rufus Hopson, *real estate dealer*, 224 Washington Avenue, Bridgeport, Conn.
 Henry Correll Humphrey, *chemist*, 551 West 149th Street, New York City.
 Augustus Washington Littleton, *gas and electric business*, retired, 38 St. Margaret's Road, Oxford, England.
 x *Francis Asbury Lowe, *mining engineer*. *1883.
 x William Dennis Marks, C. E. 1871, *engineer*, Westport, Essex County, N. Y.
 Arthur Woods Rice, *insurance agent*, New Britain, Conn.

- Evelyn Pierpont Roberts, *engineer*, Pierrepont Manor, Shrub Oaks, Westchester County, N. Y.
 George Douglass Roseberry, *manufacturer*, Pottsville, Pa.
 Alfred Stanton.
 George Frederick Stone, *teacher*, 991 Asylum Avenue, Hartford, Conn.
 Clarence Augustus Warren, *insurance agent*, 918 Second Street, Louisville, Ky.
 John George Watson, *postmaster*, Ayr, Ontario, Canada.
 Roll of Class of '70 S., 27; living, 23.

CLASS OF '71 S.

- Horace Andrews, C. E. Yale 1872, *civil engineer*, 125 Lancaster Street, Albany, N. Y.
 Edwin Faxon Bacon, *teacher*, Oneonta, N. Y.
 Luther White Burt, *civil engineer and surveyor*, 124 Collins Street, Hartford, Conn.
 *James Clark Bush, *army man and editor*. *1905.
 George Benjamin Chittenden, C. E. Yale 1873, *mining engineer*, Christmas, Ariz.
 *Russell Wheeler Davenport, M. A. Yale 1898 and Harvard 1894, *manufacturer*. *1904.
 Frederick Stoever Dickson, *banker and broker*, Maneskootuk, Rangeley, Me.
 William Cecil Durand, *banker*, Milford, Conn.
 Charles Hascall Dwinelle, *poultry raiser and insurance dealer*, Fulton, Cal.
 Charles Addison Ferry, C. E. Yale 1891, *civil engineer*, 24 Edgewood Avenue, New Haven, Conn.
 Charles Henry Greene.
 *Charles Woodford Griswold, *engineer*. *1878.
 *John Wool Griswold, *iron manufacturer*. *1902.
 John Nichols Judson, *consulting mining engineer*, 25 Broad Street, New York City.
 George Macculloch Keasbey, *lawyer*, 765 Broad Street, Newark, N. J.
 Joseph Frederick Klein, M. E. Yale 1873, *professor*, 357 Market Street, Bethlehem, Pa.
 George Granville Lobdell, *manufacturer*, 1605 Broome Street, Wilmington, Del.
 Thomas William Mather, M. E. Yale 1873, *planter, grower of fruit*, Miami, Fla.
 Mansfield Merriman, C. E. Yale 1872, Ph. D. Yale 1876, *consulting civil engineer*, 1071 Madison Avenue, New York City.

- Alfred Louis Moore, *manufacturer*, 620 Tenth Street, Moline, Ill.
- *Daniel Hobart Pierpont, *surveyor*. *1874.
- *Ferdinand Eugene Powell. *1872.
- *John Franklin Quigley, *civil engineer and manufacturer*. *1897.
- Frederick Lockwood Sanford, *engraver on wood*, 1382 Chapel Street, New Haven, Conn.
- Henry Bradford Sargent, *manufacturer*, 247 Church Street, New Haven, Conn.
- *Edward Clinton Terry, *inventor steam turbines and electrical devices*. *1908.
- Harry Degen Ziegler, *manufacturer*, 218 South Front Street, Philadelphia, Pa.

Roll Class of '71 S., 27; living, 19.

CLASS OF '72 S.

- Jacob Jackson Abbott, C. E. Yale 1874, M. E., *consulting civil and mining engineer*, 1112 Race Street, Denver, Colo.
- *James P(eter) Bogart, *engineer and surveyor*. *1903.
- Wheeler DeForest Edwards, B. A. College City N. Y. 1871, LL. B. Columbia 1874, *lawyer*, Los Angeles, Cal.
- Joseph Ridgway Gawthrop, *manufacturer*, Kennett Square, Chester County, Pa.
- William Saunders Greene.
- *George Wesson Hawes, Ph. D. Heidelberg 1880, *instructor*. *1882.
- Daniel Webster Hering, C. E. Yale 1878, Ph. D. W. Md. College 1895, LL. D. Western University 1907, *professor*, University Heights, New York City.
- *Charles Louis Johnson, *manufacturer*. *1901.
- Cassius William Kelly, B. A. Yale 1870, *engineer*, 209 Norton Street, New Haven, Conn.
- *Samuel Trevor Knapp, *banker and broker*. *1889.
- *Harrison Wheeler Lindsley, C. E. Yale 1873, *architect and instructor*. *1893.
- Frank Oscar Maxson, C. E. Yale 1882, *civil engineer*, 647 East Capitol Street, Washington, D. C.
- Robert Douglas (Milholland) Maxwell, *lawyer*, 32 South Broad Street, Philadelphia, Pa.
- *George Noyes Miller. *1904.
- *Charles Theodore Morse, LL. B. Yale 1876, *lawyer*. *1889.
- *Thomas Perkins Nevins. *1875.

Theophil Mitchell Prudden, M. D. Yale 1875, LL. D. Yale 1897, *literary and scientific work*, 160 West Fifty-ninth Street, New York City.

Thomas Hubbard Russell, M. D. Yale 1875, *professor and practicing physician and surgeon*, 79 Trumbull Street, New Haven, Conn.

Charles Austin Tibbals, *clergyman*, Clinton, Conn.

*Daniel Wardwell Wardwell, *chemist*. *1878.

*Frederick Floyd Weld, *engineer*. *1890.

William Brenton Welling, *banker and broker*, 2 Wall Street, New York City.

*Thomas Wallace Wright, M. A. Toronto University 1871, C. E. Yale 1882, Ph. D. Union 1891, *professor*. *1908.

Roll Class of '72 S., 23; living, 12.

Total in Classes '68 S. to '72 S., 129; living, 89.

BIOGRAPHIES

BIOGRAPHIES

1868 S

Wellington M. Andrew

Farmer
Orange, Conn.

Wellington Miles Andrew, '68 S., was born in Orange, Conn., December 11, 1843. He is a son of Dennis Andrew and Martha (Merwin) Andrew, who were married on May 5, 1840, and had two other children: Merwin A. Andrew, who died 1872 in New York; and Emma M. (Mrs. Albertus N. Clark).

Dennis Andrew (born January 6, 1818, at Orange, Conn., died January 5, 1883, at Orange, Conn.) was a son of Merwin Andrew and Susan (Platt) Andrew, and in direct descent from Rev. Samuel Andrew, one of the founders of Yale.

Martha (Merwin) Andrew (born October 5, 1821, at Milford, Conn., died May 10, 1851, at Orange, Conn.) was a daughter of Benedict Merwin and Polly (Isbell) Merwin, and descended in direct line from Miles Merwin of Pond Point, Milford.

Andrew prepared for Yale at Williston Seminary, Easthampton, Mass., and entered Sheff in September, 1865, where he took the Engineering Course. He was a member of Book and Snake.

He was married on July 28, 1881, to Miss Flora Booth Treat, daughter of Isaac Platt Treat, a

farmer of Orange, Conn. They have had six children: Irving Atwater Andrew (born January 21, 1883, a graduate of Yale in the Class of 1903 S.); Ashley Merwin Andrew (born August 21, 1885, a graduate of Yale in the Class of 1906 S.); Florence Andrew (born June 11, 1888); Ray Andrew (born January 19, 1890, died in infancy); Wellington Booth Andrew (born November 6, 1891); and Helen Andrew (born May 12, 1901).

In 1868 Andrew went to California, via Panama. He was engaged in surveying until June, 1878, returning overland to the East, where he settled on his farm in Orange. He is a member of the Congregational Church, and was elected to the Connecticut General Assembly in 1887.

Prof. Leonard S. Austin

Professor, Department of Metallurgy, Michigan College of
Mines

Houghton, Mich.

Leonard Strong Austin, '68 S., was born in Stratford, Conn., February 26, 1846. He is a son of Thomas Austin and Elvira (Reed) Austin, who were married June 7, 1831, and had twelve other children: J. G. Austin, Mrs. Mary E. Peters, Mrs. A. E. Johnson, E. H. Austin, J. C. Austin, William M. Austin (Yale 1860-1862), H. P. Austin, Miss L. E. Austin, Mrs. L. Haxton, Mrs. M. B. Whitehead, F. B. Austin, and T. S. Austin, who graduated from Columbia in the Class of 1876.

Thomas Austin (born in 1808, on the Island of Demerara, West Indies, died in 1883, at Stratford, Conn.) inherited a fortune from his grandfather, a physician and sugar planter, and lived at the West Indies, New York, and Stratford, Conn.

Elvira (Reed) Austin (born in 1814 on the Island of Demerara, West Indies, died in 1887, at Stratford, Conn.) was the daughter of a West Indian colonial family.

Austin prepared for Yale at the Stratford Academy, Stratford, Conn., and entered Sheff in September, 1865, where he took the Mechanical Engineering Course.

He was married on June 7, 1881, to Miss Mary E. Watson, daughter of Robert Watson of Salt Lake City, Utah. They have had three sons: Arthur Austin (born June 18, 1884, a graduate of the Colorado School of Mines in the class of 1905); Hugh Percy Austin (born August 15, 1882, died in 1886); and Allyn Austin (born December 1, 1889, died in 1890).

After leaving college, Austin spent three years in mechanical engineering work. He went as a chemist to Patagonia, South America, from 1877-79, and was engaged in metallurgical practice (silver, lead and copper smelting, including charge of metallurgical plants) in the Rocky Mountain region for twenty-one years, 1881-1902. On three occasions he has taken postgraduate work in chemistry, mineralogy, and assaying at Yale, and for three months in 1896 was

at the Colorado State School of Mines, taking work in the electrical laboratory. From October, 1903, to September, 1909, he was professor in charge of the Department of Metallurgy and Ore-dressing at the Michigan College of Mines. He is now mining and metallurgical engineer, Salt Lake City, Utah. Austin is a member of the Episcopal Church.

His published writings are: "Sampling of Ores and Metals," *E. & M. Journal*, July 22, August 5 and 22, and September 16, 1882; "Typical Lead Slags," *E. & M. Journal*, June 27, 1894; "Hard Coal in the Silver-Lead Blast Furnace," *E. & M. Journal*, December 15, 1894; "Slag Disposal," *E. & M. Journal*, November 23, 1895; "A Modern Silver-Lead Smelting Plant," *Trans. A. I. M. E.*, Vol. XXVI., p. 388; "Heat Requirements of the Lead Blast Furnace," *E. & M. Journal*, June 19, 1897; "Recent Smelting Practice in Colorado," *Mineral Industry*, Vol. V., p. 437; "Annual Review of the Metallurgy of Copper," *Mineral Industry*, Vol. XII., XIV., XV., XVI., XVII. and XVIII.; "Pyrite Smelting," *E. & M. Journal*, Vol. LXXX., p. 865; "The Washoe Plant of the Anaconda Copper Mining Co.," *Trans. A. I. M. E.*, Vol. XXXVII., p. 431; numerous articles in the *Mining and Scientific Press*, for which he is special contributor; also two books, viz.: "Metallurgy of the Common Metals" (illustrated), 494 pages; "The Fire Assay" (illustrated), 88 pages.

***George F. Bailey**

Died 1896

No information obtainable concerning George Franklin Bailey, '68 S., other than the fact that he died in 1896.

Samuel A. Barbour

Manager and Partner, Condor Mine Lease
Melrose, Mont.

Samuel Atkins Barbour, '68 S., was born in Canton, Conn., November 2, 1846. He is a son of Volney Giles Barbour and Ellen (Atkins) Barbour, who were married July 20, 1837, and had six other children: Adelaide Barbour (died April 25, 1896, at Philadelphia, Pa.), Ellen Barbour, Volney Giles Barbour, Jr. (Yale '67 S., C. E. University of Vermont, 1887, died June 4, 1901, at Minneapolis, Minn.), George Rollin Barbour, Harriet Bishop Barbour, and Thomas Flavius Barbour.

Volney Giles Barbour (born March 20, 1805, at Canton, Conn., died January 18, 1859, at Bristol Conn.) was the son of Giles Barbour and Mary (Garrett) Barbour, and grandson of Dr. Samuel Barbour and Hannah (Humphrey) Barbour. He lived at Canton and Bristol, Conn., successively, in which latter place he was at one time selectman, and town treasurer.

Ellen (Atkins) Barbour (born October 21, 1818, at Bristol, Conn., died December 29, 1853, at Canton, Conn.) was the daughter of Rollin Atkins and Harriet (Bishop) Atkins.

Barbour prepared for Yale at Williston Seminary, Easthampton, Mass., and entered Sheff in 1865,

where he took the Civil Engineering Course. He was a member of Book and Snake.

He was married on January 10, 1880, at Chicago, Ill., to Miss Helen Mar Babcock (born May 30, 1860, died May 28, 1890, at Melrose Pa.), the daughter of Benjamin Franklin Babcock, a promoter. They have two children: Samuel Volney Barbour (born February 8, 1881), and Helen M. Barbour (born May 7, 1882).

After graduation Barbour followed the profession of civil engineering in Connecticut, Arkansas, Illinois and Kentucky. In 1875 he went to Montana and engaged in mining, being mining superintendent for the Hecla Consolidated Mining Company from 1877 to 1881. Was in Idaho in 1881, and in 1882 went to Colorado. From 1884 up to 1887 he was mining superintendent for the Spar Consolidated Mining Company, of Colorado, but in 1887 he returned to Montana, and again became connected with the Hecla Consolidated Mining Company. Since 1904, however, he has been mining on his own account.

In politics Barbour is a Democrat, and was a member of the 11th Assembly of Montana Territory in 1879. He is a member of A. F. & A. M., Blue Lodge, Chapter, Council, Commandery and A. A. O. N., M. S.

Frederick C. Beach

Patent Attorney, Publisher, Editor *Scientific American*,
Editor-in-Chief "Encyclopedia Americana"

361 Broadway, New York City, and Stratford, Conn.

Frederick Conversè Beach, '68 S., was born in New York City, March 27, 1848. He is the son of Alfred Ely Beach and Harriet Eliza (Holbrook) Beach, who were married June 30, 1847.

Alfred Ely Beach (born September 1, 1826, at Springfield, Mass., died January 1, 1896, at New York City) was a patent attorney and editor (with Munn & Co.), also part owner of the *Scientific American*, and resided at Stratford, Conn., and New York City. In 1855 he invented a typewriter for the blind, similar to the Remington machine, and in 1867 invented and demonstrated the present method of shield tunneling by hydraulic rams. He was a son of Moses Y. Beach, publisher of the *New York Sun* prior to 1868, and Nancy (Day) Beach, who was related to Benjamin Day, owner at one time of the *New York Sun*.

Harriet Eliza (Holbrook) Beach (born April 29, 1828, at Boston, Mass., died January 8, 1905, at Berlin, Germany, interred at Stratford, Conn.) was a daughter of John Fisk Holbrook and Harriet (Converse) Holbrook, (Brainard) Converse. Her half-sister, Louise Holbrook, married Frederic H. Betts, '64.

Beach was educated privately, but also attended (1863-64) Mr. Marshall Strong's Military School at Bridgeport, Conn. He began the practice of photography in 1864, and in 1866 suggested to the United States Patent Office that patent drawings be

photo-lithographed. He entered Sheff in September, 1865, taking the Select Course with special interest in photography and physics.

He was married on June 16, 1875, to Miss Margaret Allen Gilbert, daughter of Charles Gilbert (who died in 1877) and Louisa A. Wheeler (who died October 28, 1903), both of Stratford, Conn. They have had three children: Stanley Yale Beach (born July 9, 1877, a graduate of Yale in the Class of '98 S., who married Helen Birdseye Curtis in September, 1897, has two sons and one daughter: Frederick Converse Beach, 2d, born August, 1898; Alfred Birdseye Beach, born in 1899; and Margaret Stanley Beach, born April, 1901); Alfred Gilbert Beach (born January 25, 1879, died July 21, 1890); and Ethel Holbrook Beach (born October 25, 1886, a graduate of Ingleside School, New Milford, Conn., in the Class of 1906, who married September 30, 1909, James Albert Wales of Stratford, Conn., a graduate of Trinity College, Hartford, Conn., 1901).

In 1868-69, Beach took a course in Patent Office practice at Washington, D. C.; in 1869-70, was appointed night superintendent of the tunnel excavation under Broadway, built by the Beach Pneumatic Transit Company, of which his father was president in 1870-71, operated a pneumatic car in the tunnel opened to the public, and explained its details. From 1871 to 1876, he engaged in the manufacturing business in New York; entered the *Scientific Ameri-*

can office in 1877, conducting the photographic department and assisting in other branches of the publication, and is still with this concern. From 1877 to 1882, Beach experimented in improving the telephone and was the first (about 1880) to transmit sermons by telephone, having charge of a private line run over the Brooklyn Bridge from Plymouth Church, Brooklyn, to 69 Union Place, New York, where the music and the sermons by Henry Ward Beecher were distinctly heard by his father and relatives. Experiments were then conducted which showed that Mr. Beecher's voice could be heard as far as Elizabeth, N. J. In the summer of 1898 Beach introduced the first electric automobile in Stratford and vicinity and established a power plant in Bridgeport for its maintenance.

Beach is a Republican in politics, but opposed to high tariff. He is a member of the Stratford Congregational Church, and has held public offices in the town. He is president of the Housatonic Club, Stratford, and a member of the National Arts Club, Camera Club, Electrical Society, and president of the Postal Progress League, all of New York City.

He founded in 1889 the *American Amateur Photographer*, since changed (1907) to *American Photography*, published monthly. His published works are: a compilation on "Inventions," and an article descriptive of "Photography" in "Encyclopedia Americana," 1904; revised photographic subjects in

the "Standard Dictionary"; and an article on "Modern Amateur Photography," *Harper's Monthly*, January, 1889.

***James deT. Blackstone**

Manufacturer

Died 1898

James deTrafford Blackstone, '68 S., son of Lorenzo Blackstone, was born in Manchester, England, in 1847. His residence while a student was in Norwich, Conn.

He was engaged in business as a manufacturer in Norwich, but had been an invalid for five years before his death.

He died at his winter home in New York City, from paralysis, on March 7, 1898, aged fifty-one years.

He married soon after graduation Miss Elizabeth A. Whittaker, of Springfield, Mass., who obtained a divorce from him in 1877. He subsequently married in London, Miss Annie Rich, who died, leaving no children. He was remarried on February 24, 1897, to his former wife, who survives him with their only son, a former member of the Class of 1898, Yale College.

***Eugene S. Bristol**

Treasurer Union Trust Company
New Haven, Conn.

Died 1910

Eugene Stuart Bristol, '68 S., was born in New Haven, Conn., January 4, 1843. He was a son of William Brooks Bristol and Mary Wolcott (Bliss) Bristol, who were married November 15, 1834, and had five other children: Louis H. Bristol, Yale '59 (died July 20, 1910); William Bristol (died in New Haven in 1874); John W. Bristol, Yale '77; Mrs. Edward S. Dana (wife of Professor Edward S. Dana, Yale '70); and Mary B. Bristol.

William Brooks Bristol, Yale 1825 (born in New Haven, Conn., in 1806, died in New Haven, Conn., in 1876), was a lawyer, the son of William Bristol, Yale 1798 (died March 7, 1836), a lawyer by profession, afterwards a judge of the Superior Court of Connecticut, and subsequently one of the judges of the Supreme Court of Errors of Connecticut. He was also a judge of the United States District Court over the District of Connecticut, and was the son of Simeon Bristol, Yale 1760, who died in 1805.

Mary Wolcott (Bliss) Bristol (born in Springfield, Mass., died in New Haven, Conn.) was the daughter of Moses Bliss and Mary (Wolcott) Bliss.

Bristol prepared at General Russell's Collegiate and Commercial Institute in New Haven, enlisted in the Union Army, December 13, 1863, was mustered in as second lieutenant of the Twenty-ninth Regiment of Connecticut Volunteers (Colored) and was

promoted to the rank of first lieutenant. He served in the Army of the James, and was wounded at Chapin's Farm, Va., September 24, 1864, while defending Fort Harrison. He was mustered out of service October 24, 1865. After the war he entered Sheff, where he took the Chemistry course, and was a member of Book and Snake. For a number of years he had been graduate Secretary of his Class.

He was married on July 18, 1903, at New Haven, Conn., to Miss Julia Silliman Gilman, daughter of Rev. Edward Whiting Gilman, Yale 1843 (who was for thirty years secretary of the American Bible Society), and niece of Daniel C. Gilman, Yale 1852.

After graduation Bristol was Assistant in Chemistry at Sheff for two years. The next three years he spent in Utah successfully engaged in mining operations. After his return he devoted himself to scientific studies and became interested in the manufacture of pins and in other business enterprises in New Haven and its vicinity. In 1887 he accepted the position of manager of a company making horseshoe nails in Chicago, Ill., where he resided for the next six years. In February, 1896, he became assistant treasurer of the Union Trust Company of New Haven and in November of the same year its treasurer. He held this office until his death.

He died of pneumonia after a few days' illness at his home in New Haven, April 2, 1910, at the age of sixty-seven years. Politically he was a Republican,

and in 1858 he became a member of the North (now United) Congregational Church.

Albert G. Clark, LL. D.

Lawyer

1612 Pennsylvania Avenue, Denver, Colo.

Albert Gardiner Clark, '68 S., was born in Cincinnati, Ohio, April 20, 1847. He is the son of Henry Clark and Mary (Skyrin) Clark, who were married in Cincinnati, and had five other children: Elizabeth, Henry, William, Sarah, and Mary, all of whom died in Cincinnati except the last named, who died in Montrose, Pa. None of the family, other than the subject of this sketch, lived to an adult age except one brother, Henry.

Henry Clark (born August, 1788, at Lyme, Conn., died August, 1879, at Glendale, Ohio) was a druggist of American descent. He was director in the Franklin Bank, and also trustee of the Glendale Association, holding the legal title to the Association's real estate.

Mary (Skyrin) Clark (born in 1800, at Philadelphia, Pa., died in 1875, at Cincinnati, Ohio) was the daughter of John Skyrin, an Englishman, and Ann (Drinker) Skyrin, who was a daughter of Henry and Elizabeth Drinker. Henry Drinker was a merchant doing a large business with England, and owning his ships. Later in life he invested his money in the purchase of several counties in Pennsylvania.

Clark prepared at various schools in Cincinnati, Ohio, and at Bridgeport, Conn., with Mr. Jones, a son-in-law of Noah Webster, Yale 1778. He entered Sheff in 1865, where he took the Select Course, and

was a member of Book and Snake and was Class Poet.

He was married October 30, 1873, in Cincinnati, Ohio, to Miss Jeannette Wilson, daughter of Pollock Wilson. They have had four children: Henry Skyrin Clark, '99 S. (born October 27, 1877, at Glendale, Ohio); Albert Gardiner Clark (born February 1, 1880, in Cincinnati); Carroll Morten Clark (born December 8, 1886, in Glendale); and Mary Skyrin Clark (born January 30, 1891, in Glendale).

After graduation Clark was engaged in the mercantile business for several years, then studied law, and from that drifted into quasi-municipal corporations in which connection he has filled the following positions: vice-president and director of the Cincinnati Street Railway, general manager and director of the Cincinnati Brush Light Company, member of the executive committee and director of the Bell Telephone Company of Cincinnati, director of the Ohio Bell Telephone Company, constructor and vice-president of the White Line Electric Street Railway Company of Dayton, Ohio, vice-president and director of the Mount Adams & Eden Park Street Railway Company of Cincinnati, member of the executive committee and director of the People's Street Railway Company of Baltimore, Md., also vice-president of the Central Trust & Safe Deposit Company of Cincinnati, and secretary and member of the board of directors of The Rookwood Pottery. He was intimately associated with electrical development,

being brought in contact with Van Derpoohl, Daft, Brush, and others who were pioneers in this work. He was the first to extract zinc commercially from purely Western ores, shipping zinc ore from Leadville, Colo., to Bruce, Kans., for smelting, and returning residue to Denver for extraction of gold, silver, etc. In social work he has been treasurer and director of the Cincinnati May Musical Festival Association; treasurer and member of the board of governors of the Queen City Club, Cincinnati; member of the Cincinnati Commercial Club, and the Denver Club of Colorado. Politically he is a Republican, and was president of the school board, and president of the board constructing water works, both of Glendale, Ohio.

He has traveled much in this country, having raised oranges in Florida, mined in Georgia, purchased timber lands in Louisiana, and sold building tracts in San Antonio, Texas.

***Henry M. Dudley**

Pharmacist

Woonsocket, R. I.

Died 1896

Henry Marchant Dudley, '68 S., the eldest child of Paul W. and Sarah A. (Tobey) Dudley, was born in Uxbridge, Mass., on August 12, 1846. His resi-

dence was early removed to Whitinsville, in the adjoining town of Northbridge.

In 1875 Dudley opened a drug store in Whitinsville, and continued in business there until 1882, when he removed to Woonsocket, R. I., where he remained in the same business until his death. He was for ten years a member of the State Board of Pharmacy, and was highly valued for his scientific attainments and accuracy, as well as respected for his character.

He died in Woonsocket, from pneumonia, after a little over a week's illness, on June 30, 1896, in his fiftieth year. He married on May 6, 1873, Hattie L. Reed, who survived him with two daughters and a son, one son having died in infancy.

Henry T. Eddy, B. A., Ph. D., LL. D.

Head Professor of Mathematics and Mechanics, College of Engineering, and Dean of the Graduate School,
University of Minnesota

916 Sixth Street S. E., Minneapolis, Minn.

Henry Turner Eddy, '68 S., was born in Stoughton, Mass., June 9, 1844. He is a son of Rev. Henry Eddy and Sarah Hayward (Torrey) Eddy, who were married August 23, 1843, and brother of Willard Eddy (Yale '70, born August 29, 1845, of Hartford, Conn., and Omaha, Neb.), and half-brother of Cornelia Eddy (born July 13, 1839, a graduate of Mt. Holyoke College, who died March 24, 1893, at Brockton, Mass.).

Rev. Henry Eddy (born November 1, 1805, at Berlin, Conn., died October 23, 1873, at Brockton, Mass.) was

a clergyman, physician and inventor. He was pastor of various Congregational churches in Massachusetts, Maine, and Connecticut, and in 1851 moved to Brockton, Mass., where he resided until his death. He graduated at Yale College in 1832, studied theology at Andover and Yale, and took the degree of Doctor of Medicine at Yale in 1851. He was a son of Thomas Eddy, and a grandson of Charles Eddy of Hartford Colony.

Sarah Hayward (Torrey) Eddy (born June 20, 1817, at Brockton, Mass., died April 4, 1885, at Cincinnati, Ohio) was the second daughter of Turner Torrey and Sarah (Snell) Torrey. She graduated at Mt. Holyoke Seminary under Mary Lyon, in 1839, and taught mathematics at Mt. Holyoke Seminary, 1839-1842.

Eddy prepared at a private academy in Brockton, Mass., and entered Yale in September, 1863, graduating from the College in 1867, with the degree of A. B., after which he took the Engineering Course at Sheff.

He was married on January 4, 1870, to Miss Sebella Elizabeth Taylor of New Haven, Conn., a graduate of Miss Dutton's School for Young Ladies, and daughter of Horace A. Taylor, Yale '40 T., a clergyman of the Western Reserve, Ohio. They have had five children: Ruth Elizabeth (born September 20, 1871, at Ithaca, N. Y., a graduate of Vassar in the Class of 1893, married on June 6, 1900, to Charles F. Keyes, B. A. '96 and B. LL. '99 University of Minnesota); Horace Taylor Eddy (born May 25, 1874, at Princeton, N. J., a graduate of the University of Minnesota with degree B. E. E. in the

Class of 1895, married to Carol Whitbeck, August 14, 1901); Esther Mabel (born July 20, 1876, at Cincinnati, Ohio, a graduate of the University of Minnesota in the Class of 1898, married on November 27, 1901, to Clive Hastings, B. M. E. '96 University of Minnesota); Beatrice Emogene Eddy (born December 10, 1886, at Cincinnati, Ohio, graduated at the University of Minnesota, B. A. '10); and Helen Frances Eddy (born July 23, 1888, at Guilford, Conn., graduated at the University of Minnesota, B. A. '10).

Eddy has made teaching his profession and has occupied the following positions: Instructor in Latin and Mathematics, University of Tennessee, 1868-69; assistant professor of Mathematics and Civil Engineering, Cornell University, 1869-73, where he took the degree of Civil Engineering, 1870, and Doctor of Philosophy, 1872; adjunct professor of Mathematics, Princeton University, 1873-74; professor of Mathematics, Astronomy, and Civil Engineering, University of Cincinnati, 1874-90; dean of Academic Faculty, 1874-77 and 1884-89; acting president and president-elect, University of Cincinnati, 1890; president, Rose Polytechnic Institute, Terre Haute, Ind., 1891-94; professor of Engineering and Mechanics, College of Engineering, University of Minnesota, 1894-97; professor of Mathematics and Mechanics and head of the departments since 1907; and dean of the Graduate School since 1906.

He is a member of the Society for Promotion of Engineering Education, American Mathematical Society, American Physical Society, American Philosophical Society of Philadelphia, and Fellow of the American Association for the Advancement of Science. Center College conferred the degree of Doctor of Laws upon him in 1892. He is a member and a deacon of the First Congregational Church of Minneapolis.

His published works are: "Analytical Geometry," 1874; "Researches in Graphical Statics," 1878; "Thermodynamics," 1879; "Neue Constructionen aus der Graphischen Statik," 1880; "Maximum Stresses under Concentrated Loads," 1890; also numerous scientific and technical papers. He is a director in the St. Anthony Falls Bank, and the Barnard-Cape Manufacturing Company, Minneapolis.

Barton D. Evans

Chief Clerk, Department of Fisheries, State of Pennsylvania
Harrisburg, Pa.

Barton Darlington Evans, '68 S., was born in West Chester, Pa., May 26, 1846.

He entered Sheff with his Class, and was a member of Book and Snake.

Evans served in the Civil War, being enlisted with the Twenty-ninth Pennsylvania Infantry in 1863, and

with the One Hundred and Ninety-second Pennsylvania Infantry in 1864. He is a member of the Grand Army of the Republic.

Edward F. Finney

Real Estate

618-619 Security Building, St. Louis, Mo., and 1335 Washington Avenue, St. Louis, Mo.

Edward Forsyth Finney, '68 S., was born in St. Louis, Mo., March 30, 1843. He is a son of William Finney and Jane (Lee) Finney, who were married March 17, 1825, and had fourteen other children, six of whom died in childhood: John L. Finney (died June 11, 1876, at Memphis, Tenn.); Rev. Thomas M. Finney, D. D. '47 (died October 1, 1900, in St. Louis); Mrs. Jane A. Wheaton, a graduate of a young ladies' seminary, New Haven, Conn., '47 (died October 1, 1882, in St. Louis); William H. Finney (died June 10, 1900, in Kansas City); Joseph T. Finney, a graduate of the St. Louis University and of Brown University, Providence, R. I. (died October 11, 1866, in Philadelphia, Pa.); James S. Finney, a graduate of Poughkeepsie Military Institute (died October 31, 1881, in Dudley, Mo.); Walter W. Finney, a graduate of Chester Military Academy, Chester, Pa. (died February 4, 1884, in St. Louis); and Mrs. Mary F. Barret, a graduate of Mme. O'Kills School, New York City, in 1857.

William Finney (born March 8, 1804, at Boley, County Cavan, Ireland, died September 4, 1858, at St. Louis, Mo.) was a merchant in St. Louis. He was a son of John Finney and E. (Johnson) Finney, Protestant Irish.

Jane (Lee) Finney (born October, 1807, at Bantry, Ireland, died October 7, 1894, at St. Louis, Mo.) was a daughter of John Lee and Jane (Kingston) Lee, Protestant Irish.

Finney prepared for Yale at the High School in St. Louis, and entered Sheff in September, 1865, where he took the Engineering Course. He was a member of Book and Snake.

He was married September 5, 1872, to Miss Juliet F. Stanton, of Stonington, Conn., a graduate of Bradford Academy, Bradford, Mass., in the Class of 1868, and daughter of the late Charles T. Stanton and Nancy Lord Stanton. They have had no children.

Since December 1, 1898, Finney has been manager of the Hart estate, with offices at 618-619 Security Building, St. Louis, Mo. He is a Democrat. After following the railroad branch of his profession for several years, he was assistant to the president of the Board of Public Improvements, St. Louis, 1883-97. He is a member of the University Club and an elder of the Second Presbyterian Church of St. Louis.

*James Fowler

Died 1892

No information obtainable concerning James Fowler, '68 S., other than that he died in 1892. In Sheff he was a member of Book and Snake.

***Frank M. Guthrie**

Agent, Lehigh Valley Railroad

Died 1900

Frank Morton Guthrie, '68 S., son of C. B. Guthrie, M. D., of Orange, N. J., was born on March 19, 1847, in Erie, Pa. During his course in the Scientific School his home was in Cincinnati, Ohio, and New York City. He was a member of Theta Xi.

After graduation Guthrie was in business in Baltimore and Cincinnati, but for some time before his death he was agent of the Lehigh Valley Railroad, at Duluth, Minn.

He married on March 2, 1882, Jane, daughter of William Waddle, M. D., of Chillicothe, Ohio.

He died at Chillicothe, Ohio, on December 21, 1900, at the age of fifty-three years.

***John C. Hersey**

Clerk, Naval Office, U. S. Customs House
New York City

Died 1909

John Corey Hersey, '68 S., was born in Lowell, Mass., August 26, 1847. He was a son of Ira Hersey and Amanda F. (Corey) Hersey, who were married December 3, 1844, and had six other children: Alice A., Anna M., Emma M. (died in 1854, in New York City), Ira P.,

Ella W. (died in 1884, at Taunton, Mass.), and William F. (died in 1903, at Boston, Mass.).

Ira Hersey (born September 17, 1819, at East Bridgewater, Mass., died December 26, 1897, at New York City) was a merchant. He was a son of Jacob Hersey and Mary (Drake) Hersey.

Amanda F. (Corey) Hersey (born November 2, 1826, at Foxboro, Mass., died January 5, 1902) was a daughter of John Corey and Anna (Rhodes) Corey.

Hersey prepared for Yale at the Quackenbos School, in New York City, and entered Sheff with his Class, where he took the Engineering Course.

He was married on April 12, 1875, to Miss Julia A. Barnard of Morristown, N. Y., daughter of Henry Barnard, who survives him. They had no children.

After graduation he was engaged in civil engineering and railroad building on the Northern Pacific Railroad, but gave up his professional work in 1882 owing to impaired health. He had been connected with the Naval Office of the United States Custom House, New York City, since November, 1879, being chief clerk and acting deputy naval officer at the time of his death. Hersey was a Republican, and for many years was a member of St. Paul's Protestant Episcopal Church of Flatbush, and later of the Christian Science Church.

He died of Bright's disease, March 30, 1909, at his home in Flatbush, Long Island, N. Y., at the age of sixty-one years.

*George A. Jackson, M. A.

Clergyman

Died 1907

George Anson Jackson, '68 S., was born in North Adams, Mass., March 17, 1846. He was a son of Jerome Bonaparte Jackson and Lydia Ann (Ward) Jackson, brother of Irvine C. Jackson (died September, 1870, in Chicago, Ill.) and Willis G. Jackson (died February 1, 1902, at Thomasville, Ga.), and half-brother of Annie Brown Jackson, a graduate of Smith College in the Class of 1882, of North Adams, Mass.

Jerome Bonaparte Jackson (born October 11, 1813, at Fairfield, N. Y., died March 13, 1880, at North Adams, Mass.) was a manufacturer living at North Adams, and at one time was chairman of the Board of Selectmen of that town. He was a son of Samuel (born in Canaan, October 13, 1783), grandson of Jacob, and great-grandson of Theophilus, of Kings District, N. Y., a member of the Committee of Safety in the Revolution. He was of Mayflower descent through Freeloze (Foote) Jackson, wife of Jacob, daughter of Ephraim Foote and Lydia (Cushman) Foote.

Lydia Ann (Ward) Jackson (born December 2, 1820, at Buckland, Mass., died September 28, 1846, at North Adams, Mass.) was a daughter of Daniel Ward and Lydia (Grover) Ward. The Ward family settled at Newtown (Cambridge), Mass., in 1630.

Before entering college, Jackson was a clerk in a dry goods store at Shelburne Falls, Mass., then a few months in an Internal Revenue Office, and for a year was bookkeeper in a shoe manufactory at North Adams. He prepared for Yale at the Troy Confer-

ence Academy, Poultney, Vt., and at the Appleton Academy, New Ipswich, Mass., and entered Sheff in the fall of 1865, where he took the Select Course, at the same time studying Latin and Greek privately under the direction of instructors in the Academic Department. He was a member of Berzelius.

He married at Andover, Mass., November 21, 1871, Miss Belle Donald, daughter of William Cooper Donald, who died in Boston, Mass., April 22, 1906. She survived him with two children: Mary Craig-Essir Jackson (born in Leavenworth, Kan., March 28, 1873, a graduate of Smith in the Class of 1895), and Jerome Paul Jackson (born in Southbridge, Mass., December 10, 1875, a graduate of Amherst in the Class of 1897 and of the Massachusetts Institute of Technology in the Class of 1899, married June 9, 1906, to Mary Susan Goldthwait of Marblehead, a graduate of Wellesley in the Class of 1897).

Jackson graduated from Andover Theological Seminary in 1871, and received the honorary degree of Master of Arts from Yale University in 1887.

Entering the ministry, he was pastor of the Second Congregational Church in Leavenworth, Kan., in 1872-73, and was ordained there September 26, 1872. From 1874 to 1878 he was pastor of the Evangelical Church at Globe Village, Southbridge, Mass., and, for nineteen years following, of the Congregational Church in Swampscott, Mass. The greater part of a year's leave of absence during this pastorate he

spent in Europe, including several weeks of research in the British Museum, visited many university towns, studied one semester at Bonn University, and made a trip to North Africa. In 1897 he was elected secretary and librarian of the General Theological Library in Boston, which loans without charge through public libraries the best professional books to New England clergymen irrespective of denomination.

In 1881 he initiated the movement which led to the organization of the New England Divorce Reform League, of which he was secretary till 1883. He was an original member of the American Church History Society, which was later merged with the American Historical Association, also a member of the National Geographic Society. From 1895 to 1897 he was chairman of the Board of Park Commissioners of Swampscott, which started the extensive shore improvements of the town.

Mr. Jackson edited, N. Y. 1879-83, four volumes in the series of the Church Fathers, was the author of a "New Creed Catechism" and of "The Son of a Prophet," the latter a work of fiction of unusual merit; as library trustee prepared the catalogue of the Southbridge (Mass.) Public Library; wrote for the *Popular Science Monthly*, *Andover Review*, *Atlantic Monthly*, *New England Magazine*, and *Library Journal*, also miscellaneous papers, including the Introduction to Mr. Waldo Thompson's

"Sketches of Swampscott," 1885, which he also edited. An address on "Old Bridgewater: a Classic Town," 1904, and others on historical subjects have been printed.

He died at his home in Swampscott May 9, 1907, at the age of sixty-one years.

*Joseph S. McKell

Merchant with McKell & Co., China and Glassware

Died 1910

Joseph Scott McKell, '68 S., was born in Chillicothe, Ohio, September 17, 1846. He was a son of William McKell and Phebe (Cook) McKell, who were married in 1836, and had twelve other children: James Cook McKell (Omaha, Neb.); William Jones McKell (died a prisoner of war at Andersonville, Ga., in 1863); Thomas Gaylord McKell (died at Chillicothe, Ohio, in 1904); Margaret Cook McKell (died at Mt. Vernon, Iowa, July 19, 1903); Maria Webb McKell (died at Chillicothe, September 28, 1902); Elizabeth McKell Smith (resides at Omaha, Neb.); Eleanor McKell Mayo (resides at Los Angeles, Cal.); and two sons and three daughters who died in early life.

William McKell (born in 1808 of Scotch Irish parentage at Derry Hall, County Armaugh, Ireland, died February 15, 1882, at Chillicothe, Ohio) was a merchant, and for twenty years was president of the First National Bank of Chillicothe. He was the first importer of English earthenware west of the Allegheny Mountains, and founded the oldest china house, con-

tinuously under one name, in the United States, since 1832.

Phebe (Cook) McKell (born August 8, 1813, at Willow Branch, Ohio, died February 4, 1901) was a descendant of the Scott and Cook families of the Revolutionary period.

McKell prepared for Yale at the High School, in Chillicothe, Ohio, and entered Sheff with his Class, where he took the Select Course. He was a member of Theta Xi.

He was married on January 18, 1881, to Miss Helen McCandless, of Pittsburg, Pa., a graduate of Pelham Priory, N. Y., and daughter of David McCandless, the first chairman of the Edgar Thompson Steel Works, Pittsburg, Pa., who died January, 1879. They had two sons: David McCandless McKell, a graduate of West Point in the Class of 1904, first lieutenant Coast Artillery, U. S. A.; and William Scott McKell, ex-'05 S., and a graduate of the Leland Stanford, Jr., University, 1908.

McKell went into his father's firm, McKell & Co., in 1871, and was owner of this company at the time of his death. He had held the office of president for several years of the Fidelity Building & Loan Company; was president of the Home Telephone Company; director in the Central National Bank, the Savings Bank, and the Chillicothe Gas & Water Company, all of Chillicothe; and president of the Portsmouth Telephone Company, Portsmouth, Ohio.

He was a member and a trustee of the Methodist Episcopal Church.

He died at his home in Chillicothe, Ohio, on September 29, 1910. His wife and two sons survive him.

Charles K. Needham, C. E.

Retired; Formerly with Louisville & Nashville R. R. Co.
New Albany, Ind.

Charles Kinney Needham, '68 S., was born in Louisville, Ky., July 12, 1848. He is a son of Edgar Needham and Sarah (Smith) Needham, who were married August 24, 1847, and had four other children: George S. Needham, '74 S. (died February 25, 1891, at Richmond, Ind.); Edward B. Needham, '80 S.; Mary (married Rev. J. B. Gregg, Colorado Springs, Colo.); and Harriet (married C. N. Ross, Etiwanda, Cal.).

Edgar Needham (born March 19, 1813, near Battle, Sussex County, England, died March 9, 1873, at Louisville, Ky.) came to this country in 1829, and was a stone cutter and contractor, living at Louisville, Ky. From 1862 until his death he was United States assessor of Internal Revenue.

Sarah (Smith) Needham (born March 27, 1820, at Waltham, Mass., died October 17, 1876, at Hartford, Conn.) was daughter of a carpenter and pattern maker who was lost at sea about ten years after his marriage. The family lived at Medfield, Mass., until she went West to teach school.

Needham prepared for Yale at the High School in Louisville, Ky., during the progress of the Civil War, and entered Sheff in September, 1865, where he took the Civil Engineering Course. After obtain-

ing the degree of Ph. B., he remained another year to receive the degree of Civil Engineer in 1869.

He is unmarried.

After graduation, and for about six years, Needham engaged in various kinds of engineering work—railroads, United States surveys, and bridge construction. He then traveled extensively for two years, spending most of the time in Germany. Returning to the United States in 1878, he again engaged in railroad building and in the maintenance of way department of a completed railroad. Scientific experiments claimed about a year of his time with an invention that seemed promising. In 1883 he went to Florida, but returned to Kentucky, with impaired health, in June, 1888. He was with the Louisville & Nashville Railroad Company until September, 1890, when he retired from active business. Exposure to the summer sun in Florida had developed an incurable nervous disorder, marked by insomnia and other disturbances, which made him unequal to the demands of engineering work either in the field or the office.

Frederick G. Noonan

434 Jackson Street, Milwaukee, Wis.

No information has been obtainable of Frederick George Noonan, '68 S. In Sheff he was a member of Book and Snake.

Lyman B. Parshall

Stock Raising

Canton, Jackson County, Iowa

Lyman Bradley Parshall, '68 S., was born in Interlaken, N. Y., June 28, 1845. He is a son of Caleb Halsey Parshall and Betsey Barlow (Bradley) Parshall, who were married January 24, 1835, and had seven other children: Hannah Julia Parshall (died March 8, 1871, at Racine, Wis.); Frances Sarepta Parshall; Sarah Louise Parshall (died October 14, 1886, at Interlaken, N. Y.); Mary Elizabeth Parshall; George Beck Parshall (died August 31, 1870, in Chicago, Ill.); Thomas Wardle Parshall; and Wilhelmina Schenk Parshall (died March 6, 1877, at Interlaken, N. Y.).

Caleb Halsey Parshall (born August 21, 1809, at Riverhead, N. Y., died September 27, 1883, at Interlaken, N. Y.) was a farmer, living at Interlaken, N. Y. He was of English ancestry, the sixth generation from James Parshall, of the Isle of Wight, England.

Betsey Barlow (Bradley) Parshall (born June 13, 1818, at Trumansburg, N. Y., died January 14, 1888, at Interlaken, N. Y.) was of New England ancestry.

Parshall was a school teacher before coming to Yale, prepared at Northville, L. I., and entered Sheff in 1865, where he took the Select Course. He was a member of Theta Xi.

He was married near Cedar Rapids, Iowa, on July 24, 1884, to Miss Ella Rebecca Smith, daughter of Philip Smith, a farmer. They have had two daughters: Genevieve Smith Parshall (born January 27, 1889, at Canton, Iowa), and Wilhelmina Bradley Parshall (born April 25, 1893, at Maquoketa, Iowa).

Parshall is engaged in stock-raising at Canton, Iowa. In politics he is a Democrat, and was county superintendent for Jackson County, Iowa, from 1892 to 1896. In November, 1908, he was elected state senator (Democratic) for the twenty-third senatorial district of Iowa, for a term of four years. He is a member of the Knights of Pythias.

William W. Redfield

Retired

2637 Portland Avenue, Minneapolis, Minn.

William Wallace Redfield, '68 S., was born in New York City, July 7, 1844. He is the son of John Howard Redfield and Mary Jane (Whitney) Redfield, who were married August 16, 1843, and had three other children: Clara Redfield (died January 4, 1891, at Philadelphia, Pa.); Robert Stuart Redfield (winter address, Wayne, Delaware County, Pa., summer address, Barnstable, Mass.); and Eliza Whitney Redfield (winter address, Cambridge, Mass., summer address, Seal Harbor, Me.).

John Howard Redfield (born July 10, 1815, at Cromwell, Conn., died February 27, 1895, at Philadelphia, Pa.) was the son of William C. Redfield and Abigail (Wilcox) Redfield, both of old New England families. He was a botanist, and author of several botanical works, a member of the Academy of Natural Sciences of Philadelphia, and for a long time corresponding secretary of the Lyceum of Natural History.

Mary Jane (Whitney) Redfield (born November, 1821, at Brownsville, Jefferson County, N. Y., died April 9, 1904, in Philadelphia, Pa.) was the daughter of Asa Whitney, of Massachusetts. Her mother was Clarinda (Williams) Whitney, of Groton, Conn.

Redfield prepared for Yale at private schools in New York City, and from 1861 to July 7, 1865, he was an apprentice in Wm. Sellers & Co., Philadelphia, entering Sheff in 1865, where he took the Civil Engineering Course.

He was married on October 31, 1872, at Waseca, Minn., to Miss Emma Louise Stoddard (born August 26, 1853), daughter of Oliver Judson Stoddard (deceased) of Kalamazoo, Mich. They have two daughters: Mary Jane Redfield (born September 21, 1873, at Waseca, Minn.), and Alice Williams Redfield (born December 24, 1878, at Minneapolis, Minn., a student at the University of Minnesota for two years). Mary Jane Redfield was a graduate and author of the Senior Play of the Class of '98, University of Minnesota, married on September 26, 1899, to Edgar M. Hoover of Little Falls, Minn., now residing in Boise, Idaho. She has two sons: John Redfield Hoover, born in 1903, and Edgar M. Hoover, Jr., born February 22, 1907.

Redfield spent eight years, previous to 1881, on location and construction of railroads, and in December, 1881, he became civil, hydraulic and mechanical engineer for the Water Department of Minneapolis, which position he held for twenty-seven years, retiring on April 1, 1909, on account of failing eyesight. Redfield has belonged to the Engineers Club of Minneapolis since its organization in 1883, and has filled, a greater part of the time, and now fills, the

office of librarian, having been their vice-president and president for one year in each office. He is also a member of the National Geographic Society of Washington, D. C. In politics he is a Republican, and is a member of the Protestant Episcopal Church.

Alexander Renick

President First National Bank of Chillicothe, Ohio

65 East Fourth Street, Chillicothe, Ohio

Alexander Renick, '68 S., was born in Chillicothe, Ohio, April 8, 1847. He is a son of Alexander Renick and Jane (Osborn) Renick, who were married April 10, 1838, and had four other children: Ralph O. Renick (died April, 1899, at Circleville, Ohio), Mrs. Dorothy R. Work, Henry T. Renick, and George Renick (died May, 1880, at Cincinnati, Ohio).

Alexander Renick (born February 4, 1815, at Chillicothe, Ohio, died September 29, 1875, at Chillicothe, Ohio) was a farmer and banker connected with the First National Bank of Chillicothe. He was a son of George Renick (born in 1776, in Virginia, died September, 1863, in Chillicothe), and grandson of William Renick (died July, 1807, in Hardy County, W. Va.).

Jane (Osborn) Renick (born December 11, 1817, at Columbus, Ohio, died October 11, 1886, at Chillicothe, Ohio) was a daughter of Ralph Osborn of the Osborn family of New England and Catherine (Renick) Osborn.

Renick attended the high school at Chillicothe, the Pennsylvania Military Academy at West Chester, Pa., and entered Sheff with his Class, where he took the Select Course. He was a member of Theta Xi.

He was married on December 29, 1874, to Miss Elizabeth Waddle, of Chillicothe, a graduate of Miss Brace's School, New Haven, Conn., in the Class of 1867, and daughter of William Waddle, a physician. They have had two sons: William Waddle Renick (died November 14, 1882), and Alexander Mortimer Renick.

Since November, 1892, Renick has been president of the First National Bank in Chillicothe, president of the Mutual Loan & Savings Association of Chillicothe, Ohio, and vice-president of the Valley Savings Bank & Trust Company of Chillicothe, Ohio. Politically he is a Republican.

***Joseph P. Rockwell**

Civil Engineer

Died 1885

Joseph Perkins Rockwell, '68 S., the youngest son of the Hon. John A. Rockwell, Yale 1822, and Mary W. (Perkins) Rockwell, was born in Norwich, Conn., in 1843.

After leaving the Free Academy, in his native city, Rockwell made an extended sea voyage, and was still abroad when the Civil War opened. Returning just as the Eighteenth Regiment of Connecticut Volunteers was being organized, he enlisted, was appointed sergeant-major, promoted to a captaincy, shared

with his brother officers for nine months the hardships of Libby prison, and after serving with credit was mustered out at the close of the war. He then entered the Scientific School, and took the Civil Engineering Course. He was a member of Berzelius.

His chief professional work was in connection with the construction of the Air Line and Shepaug Valley Railroads in this state. After the completion of these roads, he entered the employ of the Chicago, Burlington & Quincy Railroad, and in recognition of his faithfulness and ability was advanced by rapid promotion to the position of assistant superintendent.

He resigned this post in 1876 to become the manager of the North Texas Cotton Compressing Company, an important and prosperous business enterprise in Denison, Texas. A tendency to chills and fever, contracted in the army, was aggravated by his residence in Denison, and he returned about 1880 to his old home. His health, however, was permanently broken, and after a long and heroic struggle, he succumbed, while on a visit to Boston, to the final attacks of his disease, on November 22, 1885, at the age of forty-two. He was never married.

*Lewis B. Stone

Died 1871

Lewis Bridge Stone, '68 S., son of the late J. Cameron Stone, of New York City, died in Paris,

France, November 10, 1871, aged twenty-four years.

He was returning from a visit to California, Japan, China, and Europe. During the summer of 1871 he contracted the malarial fever in Rome, from the effects of which he never recovered. In Sheff he was a member of Book and Snake.

***Samuel Swift, M. D.**

Physician

Died 1896

Samuel Swift, '68 S., was born in Brooklyn, N. Y., on August 5, 1849. In Sheff he was a member of Book and Snake.

He studied medicine, and received his degree from the College of Physicians and Surgeons in New York in 1872.

In 1873 he settled in Yonkers, N. Y., where besides his medical practice he was much engaged in public affairs, being for one term mayor of the city, and also president of the Board of Education.

He was stricken with apoplexy in a public place of entertainment in New York City on the evening of July 25, 1896, and died at Flower Hospital on July 29, at the age of forty-seven.

His wife, Lucy, daughter of Judge Henry E. Davies, of New York City, died on February 4, 1897. One daughter survives them.

Prof. Henry S. Williams, Ph. D.

Professor of Geology, Cornell University
Ithaca, N. Y.

Henry Shaler Williams, '68 S., was born in Ithaca, N. Y., March 6, 1847. He is a son of Josiah Butler Williams and Mary Huggeford (Hardy) Williams, who were married September 6, 1842, and had eleven other children: George Russell Williams (a graduate of the Albany Law School); Charles Hardy Williams (died July 11, 1846); Roger Butler Williams, '68; Mary Louise Williams (died July 2, 1869); Augusta Hardy Williams; Thomas Walker Williams (died March 27, 1854); Charlotte Elizabeth Williams; Jane Edwards (married John Truman Newman); Ella Susan Williams; Clara Martha (married John Henry Tanner); and Otis Lincoln Williams (a graduate of Cornell with degree of M. E. in the Class of 1888).

Josiah Butler Williams (born December 16, 1810, at Middletown, Conn., died September 26, 1883, at Ithaca, N. Y.) was a banker residing at Ithaca, N. Y. He was state senator for several years about 1852, and chairman of the committee on revising the state laws on banking; was president of the Merchants and Farmers Bank, and of the First National Bank, Ithaca, and was one of the original trustees of Cornell University. He was a son of Josiah and Charity Shaler Williams.

Mary Huggeford (Hardy) Williams (born December 2, 1824, at Utica, N. Y.) is a daughter of Charles Elias Hardy and Louisa (Walker) Hardy.

Williams prepared at the Ithaca Academy, and entered Yale College with the Class of 1868, but at the end of Sophomore year he transferred to the Junior Class in Sheff.

He was married on October 18, 1871, to Harriet H. Willcox, daughter of Cyprian Willcox, of New Haven, Conn. They have four children, born in Ithaca, N. Y.: Charlotte W. Williams; Roger Henry Williams (a graduate at Cornell with degree of Ph. B. in the Class of 1895, and received degree of M. A. from Yale in 1903; married Frances Coleman of Paces, Va.); Arthur Shaler Williams, '01, Cornell M. E.; and Edith Clifford Williams.

Williams remained at Yale after graduation as an assistant in Paleontology, and received his Doctorate of Philosophy in 1871. During 1871-72 he occupied the chair in Natural Science at the Kentucky University. In 1880 he went to Cornell as assistant professor of Geology and was made a full professor in 1892. In that year, however, he accepted the Silliman professorship of Geology at Yale, where he remained until 1904; since that time he has been head of the Department of Geology and director of the museum at Cornell. He has charge of the Devonian Laboratory of the United States Geological Survey, and is an associate editor of the *American Journal of Science* and *Journal of Geology*.

BIOGRAPHIES

1869 S

*William G. Abbot

Secretary Connecticut Mutual Life Insurance Company

Died 1889

William Greene Abbot, '69 S., was born in Norwich, Conn., October 1, 1848, the son of Edward O. Abbot, superintendent of the Falls Manufacturing Company.

A year or two after graduation Abbot took the position of assistant in the Dime Savings Bank of Norwich, of which he became subsequently the treasurer. His administration of this institution was highly successful, but he resigned in 1881 to accept an appointment as assistant secretary of the Connecticut Mutual Life Insurance Company at Hartford. In 1884, on the promotion of the secretary to the vice-presidency, Mr. Abbot was elected secretary, and he held that responsible office until his death, fulfilling his duties with fidelity and ability. He was also a director of the State Bank of Hartford, and had served for one term as president of the Hartford Library Association.

He died in Hartford, October 12, 1889, in his forty-second year, of Bright's disease, the symptoms of which were first discovered in 1884, though his last illness was a brief one.

He left a wife, formerly Miss Rose Standish Goddard of Norwich, and two daughters.

William R. Belknap

President, Belknap Hardware & Manufacturing Co.

Second and Washington Streets, and 408 West Ormsby Avenue,
Louisville, Ky.

Roman Augustus Bissell, '69 S., was born in Detroit, Louisville, Ky., March 28, 1849. He is the son of William Burke Belknap and Mary (Richardson) Belknap, and brother of Caroline Belknap, Lucy Belknap, and Morris B. Belknap, Yale '77 S.

William Burke Belknap (born May 17, 1811, at Brimfield, Mass., died February 24, 1889, at Louisville, Ky.) was president of the Citizens National Bank and of W. B. Belknap & Co., and resided in Louisville from 1839 to the end of his life. He was a son of Morris Burke and Phoebe (Locke) Belknap.

Mary (Richardson) Belknap (born June 11, 1821, at Lexington, Ky.) is a daughter of William and Synia (Higgins) Richardson.

Belknap prepared for Yale in the Louisville High School, and entered Sheff with his Class, where he took the Select Course, mainly under Prof. W. D. Whitney and D. C. Gilman.

He was married at New Haven, Conn., on December 2, 1874, to Miss Alice Trumbull Silliman, died November, 1890, at Louisville, Ky., daughter of Benjamin Silliman, Yale 1837, professor of Chemistry and Physics at Yale. He has five children: Eleanor (born in Louisville, Vassar 1898, married December 19, 1904, to Lewis C. Humphrey of Louisville); Alice S. (married April 25, 1905, to Dr. Forbes Hawkes, Yale '87, of New York City); Mary (born in New Haven, Vassar 1903, married June 10, 1909, to George Herbert Gray, of Louisville); William Burke (born in Louisville, Yale 1908); and Christine (born in Louisville, April, 1890). He was married again on February 21, 1894, to Miss Juliet Rathbone Davison of Louisville, Ky.

Belknap has been connected with the Belknap Hardware & Manufacturing Co., of Louisville, Ky., since 1880, and is president of the company. He is an elder in the Presbyterian Church, and a member of the Country and Commercial Clubs of Louisville. In politics he is a Republican.

Belknap contributed a few articles to the *Courant* and *Lit.* while in college. A story, "The Hobby of one Holmes," was published in the *Southern Bivouac*, was copied by the *New York Evening Post*, and translated into German for the *Belletrishes Journal*. He writes occasionally for the newspapers and tradespapers, notably the *Iron Age* of New York.

Roman A. Bissell

Retired

174 Fort Street West, Detroit, Mich.

Roman Augustus Bissell, '69 S., was born in Detroit, Mich., March 16, 1848. He is a son of Augustus Edward Bissell and Melicent Wetmore (Watson) Bissell, who were married February 29, 1836, and had five other children: Henrietta Augusta Bissell (born October 16, 1839, died February 26, 1902); Edward Watson Bissell (born September 16, 1843, a resident of Detroit, Mich.); and three sons who died in early life.

Augustus Edward Bissell (born February 13, 1805, at Torrington, Conn., died July 31, 1875, at Detroit, Mich.) was a merchant. He lived for eighteen years in Georgia, removing to Detroit in 1839, where he carried on a wholesale mining and lumbering supply business until 1860, when he added to it the flour and grain and shipping business. He was a son of Elijah Bissell and Rachel (Soper) Bissell, and a descendant of the Huguenot Bissells who were driven out of France at the time (1572) of the St. Bartholomew massacre, fled to England, settled in Somersetshire, came to Plymouth in 1628, thence to Windsor, Conn., in 1635, and soon had the monopoly of the ferry (the Scantic) across the Big (Connecticut) River, which remained in the family more than one hundred years.

Melicent Wetmore (Watson) Bissell (born December 29, 1808, at New Hartford, Conn., died January 3, 1885, at Detroit, Mich) was a daughter of Thomas Watson, a soldier in the Revolution, and Melicent (Wetmore) Watson, who were married January, 1797. The Watsons settled in this country at Hartford in 1644.

Bissell prepared for Yale at Mr. Patterson's private school in Detroit, and entered Sheff with his Class, where he took the Civil Engineering Course.

He is unmarried.

A few months after graduation Bissell went to Kansas and was rodman, transitman, assistant engineer, etc., on the Leavenworth, Lawrence & Galveston Railroad until the summer of 1872. He then returned to Detroit and entered his father's firm on the docks until the latter's death in July, 1875; was bookkeeper for a large flour firm; and bought and equipped a mill for oatmeal, etc., but sold out at the end of three years. Bissell was one of four to build up a large and profitable cartage and storage business, and was secretary and treasurer of the firm for eight years. As a result of overwork, his health broke down, and he retired in 1889.

In politics, Bissell is a Republican, putting good citizenship before party. He was a few years in the Michigan State Militia, and served in a few riot calls. He is a member of the First Congregational Church, and has held various church offices. He is a member of the Sons of the American Revolution, the Detroit Boat Club, and the University Club.

Charles A. Brinley

Managing Director, The American Pulley Company
29th and Bristol Streets, and 247 South 16th Street,
Philadelphia, Pa.

Charles A. Brinley, '69 S., was born in Hartford, Conn., August 23, 1847. He is a son of George Brinley, and Frances Ellen (Terry) Brinley, who were married in 1839, and had four other children: George P. Brinley

(deceased), Edward Brinley (deceased), Catharine H. Brinley (deceased), and Ellen Terry Brinley.

George Brinley (born May 18, 1817, at Boston, Mass., died May 16, 1875, at Bermuda) was a Bibliomaniac living at Hartford, and was a trustee of the Watkinson Library. He received the honorary degree of M. A. from Yale in 1868. He was a son of George Brinley, a direct descendant of Thomas Brinley, auditor general to Charles I. of England, and of Katharine Putnam, granddaughter of General Israel Putnam.

Frances Ellen (Terry) Brinley (born March 14, 1816, died April 8, 1876, at Hartford, Conn.) was a daughter of General Nathaniel Terry and Katharine (Wadsworth) Terry, daughter of Colonel Jeremiah Wadsworth, of Hartford, Conn., agent of the French Army in the American Revolution, and assistant quartermaster general of the Continental Army.

Brinley spent one year on geological survey work in California before entering Yale. He prepared for college at the High School in Hartford, and entered Sheff in November, 1866, where he took the Chemistry Course.

He was married on April 24, 1877, to Miss Mary Goodrich Frothingham, daughter of Theodore Frothingham, a merchant of Philadelphia, Pa. They have four children: Charles Edward Brinley (born February 25, 1878, Yale B. A., 1900, Ph. B. 1901); Mary Frothingham (born May 14, 1879, married John Wallingford Muir, November 15, 1905); Katharine Brinley (born June 14, 1883); and Alice Wolcott Brinley (born September 18, 1886).

Brinley was a postgraduate student at Yale, 1869-

72; chemist, with the Midvale Steel Company, Philadelphia, 1872-74; superintendent, Midvale Steel Company, 1874-82; general manager, Franklin Sugar Refinery, Philadelphia, 1882-92. He was president of the American Society for the Extension of University Teaching, 1893-1903. In 1898, he became managing director, and in 1907 president, of the American Pulley Company, which position he now holds. He has traveled extensively, and has made four trips abroad.

In politics, Brinley is an independent voter. He is a member of the Episcopal Church, and belongs to the Mayflower Society, Sons of the American Revolution, Rittenhouse Club, University Club and Germantown Cricket Club, all of Philadelphia.

His published works are: "Citizenship," Porter & Coates, Philadelphia; "Voter's Hand Book"; Address before Convention of University Extension Delegates, Morristown, N. J., American Society for the Extension of University Teaching; "Morchester," under *nom de guerre*, Charles Datchet, G. P. Putnam's Sons; "Russell W. Davenport," a biographical sketch, G. P. Putnam's Sons.

Dr. Francis D. Buck, M. D.

Physician

158 West Forty-eighth Street, New York City

Francis Dudley Buck, '69 S., was born in New York City, October 11, 1850. He is a son of Gurdon Buck

and Henrietta E. (Wolff) Buck, who were married July 27, 1836, and had four other children: Albert Henry Buck, '64, Columbia M. D., '67; Gurdon Saltonstall Buck, ex-'70; Amelia H. Buck (deceased); and Susan M. Buck.

Gurdon Buck (born May 4, 1807, at New York City, died March 6, 1877, at New York City) was a physician and surgeon of New York City. He was also on the staff of the New York, Roosevelt, and Presbyterian Hospitals. He was a son of Gurdon Buck, a New York merchant, and Susan, daughter of David Manwaring, also of New York.

Henrietta E. (Wolff) Buck (born March 4, 1810, at Geneva, Switzerland, died September 20, 1899, at New York City) was a daughter of Albert Henry Wolff of Geneva, Switzerland.

Buck prepared for Yale at Marron's School, Morristown, N. J., and Cherbuliez's School, Pelham, N. Y., and entered Sheff in the fall of 1866, where he took the Chemistry Course. He was a member of Theta Xi.

He was married in April, 1872, to Miss Clara Tillon (died January, 1873, at New York City), daughter of Francis Tillon, a lawyer of New York City. He has one son: Francis Tillon Buck (born January 11, 1873, Columbia '94).

Buck graduated from the College of Physicians and Surgeons (Columbia) 1876, and is a physician in New York City. He is a member of the Presbyterian Church, belongs to the New York County Medical Society, Medical Association of Greater

New York, New York State Medical Society and American Medical Association.

Andrew D. Chidsey

Banker, Hacken & Chidsey
Easton, Pa.

Andrew Dwight Chidsey, '69 S., was born in East Haven, Conn., September 30, 1848. He is the son of Russell Smith Chidsey (born in Foxon, Conn.) and Lucy (Morris) Chidsey (born in East Haven, Conn.).

Chidsey prepared for Yale at Lawrenceville, N. J., and entered Sheff in the fall of 1866, where he took the Select Course.

He married Miss Georgia Lake of Easton, Pa. They have five children: Helen Street Chidsey (born July 5, 1876); Andrew Dwight Chidsey, Jr., (born October 7, 1879, at Easton, Pa., C. E. Lafayette); Thomas McKeen Chidsey (born January 26, 1884, B. A. Lafayette); Harold Russell Chidsey (born June 1, 1887); and Alan Luke Chidsey (born March 13, 1904).

Chidsey is a Republican. He has been a director in banks and other institutions.

*Clarence M. Clarke

Civil Engineer
Died 1890

Clarence Marcellus Clarke, '69 S., died in Washington, D. C., June 15, 1890. His early residence

was in New Haven, and here he enlisted, in July, 1862, in the Fifteenth Connecticut Regiment of Volunteers as a private; he was made first lieutenant of the Twenty-ninth Regiment in June, 1864, and captain in the same regiment in May, 1865.

After graduation he followed the profession of a civil engineer, and for many years before his death resided in Washington. His death resulted from nervous prostration due to overwork.

Frederick S. Curtis

Principal and Owner of The Curtis School for Boys
Brookfield Center, Conn.

Frederick Smillie Curtis, '69 S., was born in Stratford, Conn., February 8, 1850. He is the son of Calvin Curtis and Elizabeth (Wicks) Curtis, who were married November 13, 1844, at New York City, and had two other children: Helen Augusta Curtis and Lily Curtis.

Calvin Curtis (born July 5, 1822, at Stratford, Conn., died July 12, 1893) was a portrait painter, living at Stratford, Conn. He was a lineal descendant of William Curtis, who landed at Scituate, December, 1632, and of Rev. Nathan Birdseye, Yale 1736.

Elizabeth (Wicks) Curtis (born April 23, 1819, at New York City, died April 13, 1884, at Stratford, Conn.) was descended from Thomas Weeks of Huntington, Long Island, and the Scudders, also of Long Island.

Curtis prepared for Yale at the Academy in Stratford, Conn., and entered Sheff with his Class, where he took the Chemistry and Mining Course.

He was married on October 29, 1873, to Miss Ida Jewell Whiting of Stratford, Conn., daughter of Ezra Whiting. They have three children: Chloe Curtis (born January 24, 1878, Wellesley 1900); Gerald Beckwith Curtis (born February 22, 1882); and Lawrence Curtis (born February 23, 1890).

Curtis has been principal of the Curtis School for Boys since 1875. In 1902 and 1908 he visited Europe. He was moderator of the State Conference of Congregational Churches in 1902, and delegate to the Third International Council of Congregational Churches at Edinburgh in 1908. He writes, "An uneventful life spent chiefly in developing my own school on my own ideas." He is a deacon and trustee of the Congregational Church. In politics he is a Republican.

Prof. Augustus J. DuBois, C. E., Ph. D.

Professor of Civil Engineering, Yale University
334 Edwards Street, New Haven, Conn.

Augustus Jay DuBois, '69 S., was born in Newton Falls, Ohio, April 25, 1849. He is a son of Henry Augustus DuBois and Catherine Helena (Jay) DuBois, who were married December 17, 1835, and had six other children: Cornelius Jay DuBois (born August 30, 1836, LL. B. Columbia 1861, M. D. Yale 1866, died February 11, 1880, at New Haven, Conn.); Henry Augustus DuBois (born June 26, 1840, Ph. B. Yale 1859, died May 26, 1897, at San Rafael, Cal.); John Jay DuBois (born June 6, 1846, B. A. Yale 1867, LL. B. Columbia 1869, M. A. Yale 1872, died November 11, 1898, at Lake-

wood, N. J.); Alfred Wagstaff DuBois (born December 30, 1852, died March 18, 1900, at Paris, France); Mary Rutherford Jay DuBois (born May 22, 1854); and Robert Ogden DuBois (born January 19, 1860, Ph. B. Yale 1883, M. D. Yale 1886, died March 9, 1895, at New York City).

Henry Augustus DuBois (born August 8, 1808, at New York City, died January 13, 1884, at New Haven, Conn.) was a physician residing successively at New York City, Newton Falls, Ohio, and New Haven, Conn. He graduated at Columbia College in 1827, and received his degree in medicine there in 1830. Yale gave him the honorary degree of Doctor of Laws in 1884. He was a son of Cornelius DuBois, a descendant of Jacques DuBois, French Huguenot refugee from Artois, who fled to Leyden, Holland, and emigrated to Esopus, N. Y., and Sarah Platt (Ogden) DuBois of New York.

Catherine Helena (Jay) DuBois (born June 11, 1815, at New York City, died September 29, 1889, at New Haven, Conn.) was a daughter of Peter Augustus Jay, eldest son of Chief Justice John Jay, a descendant of Augustus Jay, a French Huguenot, and Sarah Van Brugh Livingston, daughter of William Livingston, governor of New Jersey.

DuBois prepared for Yale at the Hopkins Grammar School, New Haven, Conn., and entered Sheff with his Class, where he took the Civil Engineering Course. Graduate work gave him the degrees of Civil Engineer in 1870, and Doctor of Philosophy in 1873.

He was married on June 23, 1883, to Miss Adeline Blakesley of New Haven, Conn., daughter of Arthur Blakesley, retired. They have no children.

After graduation in 1869, DuBois practiced engineering in New Haven and in California; studied eighteen months in the Royal Mining Academy at Freiberg, Saxony; practiced in New Haven and taught in the Sheffield Scientific School; was appointed professor of Civil and Mechanical Engineering at Lehigh University in 1875; was called to the Sheffield Scientific School as professor of Mechanical Engineering in 1877; and was made professor of Civil Engineering in 1884. DuBois visited Europe in 1872, 1880, 1882, 1883, 1891, 1898, and 1906. He is a member of the American Association for the Advancement of Science, American Society of Civil Engineers, and various other scientific bodies.

His published works are as follows:

"The New Method of Graphical Statics," *Van Nostrand's Ecler. Engineering Mag.*, February, March, April, May, June, 1875, 50 pp.; "The Elements of Graphical Statics and their application to Framed Structures, together with the best methods of Calculation, and containing also new and practical Formulas for the Pivot or Draw Span, Braced Arch, Continuous Girder," etc., New York, 8°, 472 pp., with an Atlas of 32 pl., 1875; 2d ed., 1877; 3d ed., 1879; 4th ed., 1883; "The New Method of Graphical Statics, containing a Short Presentation of the Principles of the Subject, for the use of Engineers," New York, 8°, 100 pp., 1876; "The Graphical and Analytical Determination of the Stresses in a Roof Truss," *Jour. Franklin Institute*, April, 1876, 16 pp.; "Continuous Girders and Draw Spans" *Ibid.*, July, 1876, 16 pp.; Translated from the fourth edition of

Weisbach's Mechanics of Engineering: "Hydraulics and Hydraulic Motors, with numerous practical examples for the calculation and construction of Water Wheels, including Breast, Undershot, Back-pitch, Overshot Wheels, etc., and a special discussion of the various forms of Turbines," New York, 1877, 8°, 728 pp.; 2d ed., 1880; 3d ed., 1882; 4th ed., 1883; 5th ed., 1886; 6th ed., 1888; 7th ed., 1890; Translated: "The calculation of Strength and Dimensions of Iron and Steel Constructions, with reference to the latest experiments, by Prof. J. J. Weyrauch," New York, 8°, 222 pp., 1877; 2d ed., 1886; 3d ed., 1890; Translated from the fourth edition of Weisbach's Mechanics of Engineering: "Theory of the Steam Engine," New York, 8°, 567 pp., 1878; 2d ed., 1880; 3d ed., 1883; 4th ed., 1887; 5th ed., 1891; "Upon a New Theory of the Retaining Wall," *Jour. Franklin Institute*, December, 1879, 28 pp.; Translated and enlarged: "The Principles of Thermodynamics, with special application to Hot Air, Gas and Steam Engines, by Prof. Röntgen," New York, 8°, 649 pp., 1879; 2d ed., revised and enlarged, 1885, 727 pp.; 3d ed., 1889; "A New Theory of the Suspension System with Stiffening Truss," *Jour. Franklin Inst.*, February, March, April, 1882, 50 pp.; "The Stresses in Framed Structures, with numerous practical applications to Cranes, Bridge, Roof and Suspension Trusses, Braced Arches, Pivot and Draw Spans, Continuous Girders, etc.; also the Determination of Dimensions and Designing of Details, with complete Designs and Working Drawings, Specifications and Contracts"—fifteen folding plates, New York, 4°, 396 pp., 1883; 2d ed., 1883; 3d ed., revised and enlarged, 1886, 472 pp.; 4th ed., 1888; 5th ed., revised and enlarged, 1888, 540 pp.; 6th ed., 1890; 7th ed., revised and enlarged, 1890, 576 pp.; 8th ed., 1891; 9th ed., 1892; "The Early History of the Steam Engine," *Manufacturers' Gazette*, March 15, 1884, 30 pp.; Tables for Bridge Engineers, giving the maximum Shear and

Moment at any point of a span from 10 to 300 feet long, as well as the position of the Load System, New York, 4°, 54 pp., 1885; "Science and the Supernatural," London, 8°, 50 pp., 1885; 2d and 3d ed., 1887; "Science and the Spiritual," London, 8°, 46 pp., 1887; "Formulas for the Weights of Bridges," *Trans. Amer. Soc. Civ. Eng.*, May, 1887, 28 pp.; "Formulas for the Weights of Bridges," *Ibid.*, June, 1888, 20 pp.; "Science and Miracle," *N. Eng. and Yale Rev.*, July, 1889, 32 pp.; "Science and Immortality," *Century Mag.*, December, 1891, 30 pp.; "Science and Faith," *Christ. Thought*, February, 1892, 33 pp.; "Science and Religion," *Century Mag.*, 1894, 30 pp.; "The Elementary Principles of Mechanics," New York, Vol. I., Kinematics, 8°, 225 pp., 1894; Vol. II., Statics, 8°, 392 pp., 1894; Vol. III., Kinetics, 8°, 290 pp., 1895; "The Mechanics of Engineering," New York, Vol. I., 4°, 634 pp., 1902; Vol. II., 4°, 601 pp., 1902.

Joseph R. Folsom

Care Commercial National Bank
Salt Lake City, Utah

Joseph Robinson Folsom, '69 S., was born in New York City, June 12, 1848. He is a son of George DeForest Folsom and Susan B. (Curtis) Folsom, who had two other sons: George S. Folsom, '81 S.; and Wallace L. Folsom (died in 1905, at New Haven, Conn.).

George DeForest Folsom, Yale '45, Union Theological Seminary 1848 (born in 1822, at Bucksport, Maine, died in 1895, in California), was a Congregational clergyman living in California. He was a son of Joseph R. Folsom and Elizabeth (Winship) Folsom of Bucksport, Me.

Susan B. (Curtis) Folsom was born at Bath, Me., and died in California in 1893.

Folsom prepared for Yale at the Hopkins Grammar School, and entered Sheff with his Class, where he took the Mining and Chemistry Course.

He was married at Brooklyn, N. Y., on September 9, 1893, to Miss Agnes Shearman of Salt Lake City, Utah, a daughter of William H. Shearman. They have no children.

Folsom has no regular occupation. From 1890 to 1905 he was a member of the Bohemian Club of San Francisco, and traveled in Europe in 1904 and 1905. He is a Republican.

He has been ill since 1905 and desperately so since November 20, 1909, with hardening of the arteries. He has been living in Washington for nearly three years.

Albert B. Hill, C. E.

Civil Engineer

100 Crown Street, and 295 Crown Street, New Haven, Conn.

Albert Banks Hill, '69 S., was born in Redding, Conn., May 28, 1847. He is a son of Bradley Hill and Betsey (Banks) Hill, who were married November 3, 1822, and had six other children: Abby M. Hill, William Burr Hill, Sarah E. Hill, Mary E. Hill, Martha Hill, and Arthur B. Hill, all deceased.

Bradley Hill (born September 9, 1798, at Fairfield, Conn., died January 10, 1881, at Redding, Conn.) was a farmer living at Redding, Conn., and was at one time representative in the State Legislature. He was de-

scended from a William Hill who came from England in 1632, and finally settled in Fairfield, Conn. It is recorded that "He was a man of note among the Colonists."

Betsey (Banks) Hill was born November 3, 1805, at Redding, Conn., and died July 11, 1885, at Redding.

Hill attended the common school in Redding and, excepting one term in a private school, prepared himself for college. He entered Sheff with his Class, where he took the Civil Engineering Course, followed by graduate work leading to the degree of Civil Engineer in 1870.

He is unmarried.

Hill was an instructor in Mechanics and Surveying at the Scientific School in 1870-71. In 1871, he entered the Engineers Department of the city of New Haven, in charge of a party surveying the city. In 1872, he was assistant engineer in charge of the sewer construction in New Haven. He was city engineer in New Haven, 1883-92. Since 1892 he has been engaged in private practice as civil and consulting engineer, with his office at New Haven, Conn. Hill is an independent Republican. He is a member of the First Congregational Church Society of Redding, Conn. He is a member and past president of the Connecticut Society of Civil Engineers; member and past director of the American Society of Civil Engineers, and member of other scientific societies.

***Joseph C. Hornblower**

Architect

Died 1908

Joseph Courten Hornblower, '69 S., son of Rev. William Henry Hornblower, D. D., and Matilda (Butler) Hornblower, was born March 3, 1848, in Paterson, N. J. His father was pastor of the First Presbyterian Church there from 1844 to 1871, and then professor of Church Government and Pastoral Theology in the Western Theological Seminary at Allegheny, Pa., till his death in 1883.

After graduation from the Sheffield Scientific School, Hornblower studied architecture in this country, and in Paris in 1875-76, becoming in 1883 a member of the firm of Hornblower & Marshall, who designed the United States Custom House at Baltimore and the National Museum at Washington. He was a Fellow of the American Institute of Architects.

While traveling for his health, he died at The Hague, Holland, August 21, 1908, at the age of sixty years. He was buried in Paterson, N. J.

He married, June 29, 1893, Caroline, daughter of the late Joseph P. Bradley (Rutgers 1836), associate justice of the United States Supreme Court, and of Mary (Hornblower) Bradley, who survives him.

Nelson P. Hulst, Ph. D.

Retired

300 Knapp Street, Milwaukee, Wis.

Nelson Powell Hulst, '69 S., was born in Brooklyn, N. Y., February 8, 1842. He is the son of Garret Hulst and Nancy (Powell) Hulst, who were married in 1837.

Garret Hulst (born in 1809, at Newton, Long Island, N. Y., died September 20, 1866, at Alexandria, Va.) was a merchant living at Alexandria, Va., at the time of his death. He was of Dutch descent, his ancestry tracing back to the New Netherlands Colonial times.

Nancy (Powell) Hulst (born February 11, 1820, near Hicksville, Long Island, N. Y., died August 7, 1904, at Omaha, Neb.) was of Welsh descent on her father's side, and of Dutch descent on her mother's side.

Hulst intended to enter the University of Virginia in 1863, and was preparing at his home in Alexandria, Va., but in 1861 the town became a military camp and all the schools were closed, so that he went to the Stanmore School at Sandy Spring, Md., to finish his preparation. He came to Yale, however, graduating from the College in 1867, entered Sheff in 1868, where he took the Mining Engineering Course, and in addition to his bachelor's degree, took his doctor's degree in Philosophy at Yale, the latter in 1870.

He was married at Milwaukee, Wis., on May 12, 1875, to Miss Florence Terry, who was born in Hartford, Conn. She was a daughter of Frank Henry Terry (died in Nassau in 1874), a merchant

in Milwaukee for many years. They have five children: Henry Terry Hulst (born May 13, 1876, at Milwaukee, married Flora Brett, May 12, 1902); Clarence Powell Hulst (born February 1, 1878, at Milwaukee, Yale 1900, married Marian Grey, March 15, 1907); Edith Ripley Hulst (born August 19, 1880, at Vulcan, Mich.); Alfred Nelson Hulst (born August 5, 1884, at Milwaukee); and Alice Florence Hulst (born July 2, 1889, at Okauchee, Wis.).

Upon graduation in 1870, Hulst was offered a professorship at the United States Naval School, Annapolis, but accepted a position of chemist and engineer for the Milwaukee Iron Company, Milwaukee, Wis. He soon became familiar with the iron ores of the Lake Superior district, and was commissioned to explore for iron ores in Wisconsin and Michigan. In 1872 he began development of the iron mines which he had discovered on the Menominee Range just north of the boundary line of Wisconsin, in the upper peninsula of Michigan, and in 1877 became general manager of the Menominee Mining Company. On account of impaired health, due to overwork, he retired in 1881; but in 1886 he resumed work with the same associates in the Menominee district, opening up extensive iron mines. In 1896 he was called to the employ of the Carnegie Steel Company, as general manager of its iron mines in Michigan and Minnesota. In 1901, at the organization of the United States Steel Corporation, Hulst

became vice-president of all the iron mining interests of that corporation (some thirty-five subsidiary organizations). He resigned from these duties in 1905, to enjoy a needed rest. He has made many visits to various mining districts in Canada, as well as to those in different parts of the United States. He is a Republican, and in 1880-81, he was post-master at the mining camp, Vulcan, Mich. He has held at intervals the office of deacon and trustee of Plymouth Congregational Church, Milwaukee, for thirty years, and is a trustee of Beloit College and of Milwaukee Downer College, Wisconsin. He is a member of the American Institute of Mining Engineers, the Iron and Steel Institute of Great Britain, and other scientific and learned societies. Since his retirement from active business, he has devoted much of his time to civic and charitable interests in his home city, Milwaukee, Wis.

***Edward W. Johnson**

Banker

Died 1878

Edward Whiting Johnson, '69 S., eldest son of Frank and Mary Rebecca Johnson, was born in Norwich, Conn., December 28, 1848, and died in the same city, of spinal meningitis, January 31, 1878, aged twenty-nine years.

His preparatory training was received at General Russell's Collegiate and Commercial Institute, in New Haven. After his graduation he sailed on the U. S. Flagship Lancaster for a visit to South America, and then spent a year in European travel. Soon after his return he was married, November 8, 1871, to Miss Alice Isabella Thomas of Hartford, Conn., and he was engaged for the rest of his life in the banking business in Norwich, winning in his brief career the sincere respect of the community. His wife and one son survive him.

Joseph G. Kendall

No information about the biography or present whereabouts of Joseph Goodhue Kendall, '69 S., has been obtainable.

*Charles B. Koon

Engineer

Died 1885

Charles Byron Koon, '69 S., was born in Rensselaer County, N. Y., in May, 1846. His parents removed about two years later to Auburn, N. Y., whence he entered college.

After graduation he was employed as city engineer of Auburn. In the spring of 1871 he went to Kansas,

and was engaged for about two years in the dangerous task of running the line of the Atchison, Topeka & Santa Fe Railway. He then returned to New York state at the solicitation of his friends, and remained at home until the spring of 1879, when he went to Nebraska in the employ of the Burlington & Missouri River Railway Company, in running its line to Denver. In April, 1883, he left this situation to accept a responsible position with the Mexican Central Railway Company, for the survey of a projected line from Tampico to San Luis Potosi. When this service was nearly finished, he met his death by a fall down a precipice, while exploring the lower portion of the Rio Verde canon, near the village of Paliahuay, on April 16, 1885. His wife and three children survive him.

Houston Lowe

Paint and Varnish Maker, President, The Lowe Brothers Co.
Dayton, Ohio

Houston Lowe, '69 S., was born in Dayton, Ohio, September 18, 1849. He is the son of John Gilbert Lowe and Marianna Louisa (Phillips) Lowe, who were married May 9, 1843, and had four other children: Frances Kemper Lowe Newbold, Elizabeth Worthington Stoddard Lowe, Henry Clay Lowe (Williams 1869), and Mary Davies Lowe Gaddis.

John Gilbert Lowe (born September 25, 1817, at Lebanon, Ohio, died July 30, 1892, at Dayton, Ohio) was a

lawyer living at Dayton, Ohio. He was colonel of the One Hundred and Thirty-first Ohio Volunteer Infantry, and was trustee of numerous estates. He graduated at Miami University in 1837, and was valedictorian of his class. He was a son of Jacob Derrick Lowe, of Dutch descent. The Lowes first settled in Harlem, New York.

Marianna Louisa (Phillips) Lowe (born March 30, 1814, at Dayton, Ohio, died September, 1896, at Dayton) was a daughter of Horatio Gates Phillips and Elizabeth Smith (Houston) Phillips, the Phillipses being of Welsh descent, the Houstons of English; first settled in New Jersey.

Lowe prepared for Yale at the public school in Dayton, Ohio, and entered Sheff in September, 1866, where he took the Select Course.

He was married at Dayton, Ohio, on December 28, 1871, to Miss Carrie Harries of Dayton, daughter of Charles Harries, an ale brewer. They have five children: Charles Harries Lowe (born June 24, 1873, at Dayton, Ohio); Ella Harries (born January 15, 1875, married Lewis Winters Gunckel, Yale A. B. 1891); Elizabeth (born February 18, 1877, married Francis Fay Hill Smith, M. I. T. 1900); Henrietta Churchill (born November 20, 1882, married Robert Dun Patterson, Yale Ph. B. 1904); and John Gilbert Lowe (born March 2, 1884, Yale 1907).

Since December, 1869, Lowe has been connected with the Lowe Brothers Company of Dayton, Ohio, paint and varnish makers, and is now president of

the company. Lowe is an independent Republican. He is a member of the Presbyterian Church, and has been deacon and trustee of the church. He is a member of the American Association for the Advancement of Science, Society of Chemical Industry, Associate American Society Civil Engineers, Western Railway Club, Chemists Club of New York, Yale Club of New York, and Dayton Club of Dayton, Ohio.

His published works are: "Hints on Painting Structural Steel"; "Paints for Steel Structures"; article on "The Preservation of Structural Steel," in *Encyclopedia Americana*; address on "Paint" before Western Railway Club, published in the proceedings of the society; address on "Factors that affect Results in Painting," before Engineers Society of Western Pennsylvania, published in the proceedings of the society; lectures before the Chemists Club of New York, the Pennsylvania Railroad officials, the Baltimore & Ohio Railroad officials, etc.

Lowe writes: "In a business way my efforts have been along the same lines since leaving Yale, and for any success that has attended them, much has been due to the influence of the godly men with whom I came in contact while there—Woolsey, Dana, Lyman, Whitney, Gilman, Brush, Marsh, etc."

Henry H. Perry

Savings Bank Teller and Insurance Agent
Southport, Conn.

Henry Hoyt Perry, '69 S., was born in Southport, Conn., December 8, 1849. He is the son of Oliver Henry Perry and Harriette E. (Hoyt) Perry; brother of John Hoyt Perry, Yale 1870, LL. B. Columbia 1873; Winthrop Hoyt Perry, Yale 1876, LL. B. '82; and Mrs. Hattie H. Rieffestahl.

Oliver Henry Perry (died March, 1882, at Richmond, Va.) at one time held the position of secretary of the State of Connecticut. He received the honorary degree of M. A. from Yale in 1875.

Harriette E. (Hoyt) Perry (born in Danbury, Conn., died May 30, 1898, at Southport, Conn.) was a daughter of Eli T. Hoyt and Mary (White) Hoyt.

Perry was prepared for Yale by private tutor, and entered Sheff in 1866, where he took the Chemistry and Civil Engineering Course. He was a member of Theta Xi, and rowed on the Class crew in Senior year.

He was married to Miss Florence P. Sanborn of Ashtabula, Ohio (died at Southport, Conn., July 19, 1881), and they had two children: Carolyn S. (born in Ashtabula, Ohio, July 14, 1875, graduated from college at Haverhill, Mass., married E. H. Roberts of Minneapolis, Minn.); and Oliver Henry Perry (born February 19, 1878, Yale Ph. B. 1899, died November 30, 1899, at Omaha, Neb.). He was

married again on August 29, 1883, to Miss Isabel H. Douglas, who is still living.

Perry is a Republican in politics. He is a member of the Congregational Church, being a member of the business committee and church treasurer for years. He is a member of the Masonic Order, Odd Fellows, president of the Bachelors' Comfort and Married Men's Relief Club, Southport, and Bridgeport Yacht Club.

Charles H. Pope

Manufacturing and Real Estate
925 Seventeenth Street, Moline, Ill.

Charles Henrique Pope, '69 S., was born in Genoa, Cayuga County, N. Y., April 16, 1849. He is the son of Samuel W. Pope and Helen Ruth (Avery) Pope, who were married July 12, 1848, and had three other children: Mrs. Jennie P. Meader, Arthur L. Pope, and Frederic E. Pope.

Samuel W. Pope (born May 3, 1820, at Hallowell, Me., died May 2, 1892, at St. Louis, Mo.) was a business man living at St. Louis, Mo., at the time of his death. He was a descendant of Joseph Pope, a Quaker, who settled in Salem, Mass., about 1634, having come from England on account of the persecution of Quakers in that country.

Helen Ruth (Avery) Pope (born June 12, 1829, at Genoa, Cayuga County, N. Y., died May 18, 1903, at Norwood, Ohio) was a daughter of Edwin and Julia T. (Collins) Avery, and a descendant of James Avery (only son of Christopher Avery, the emigrant), born in 1620, in England, came to America with his father, and

married in Boston, Joanna Greenslade, November 10, 1643. James Avery was the founder of the family of Groton (Conn.) Averys. Two ancestors of Helen Ruth Avery Pope were engaged in the Fort Griswold Massacre, September 6, 1781; Daniel Avery, an ensign in the navy who was killed, and Ebenezer Avery (ensign), who survived that fight.

Pope attended school in Buffalo and Rochester, N. Y., and was in Louisville, Ky., in grammar and high school during the Civil War. He graduated from the high school in June, 1866, and entered Sheff in September, 1866, where he took the Civil Engineering Course. He was one of the Class historians and a member of Book and Snake.

He was married at Milburn, N. J., on March 13, 1879, to Miss Lillian Elma Lyon of Milburn, a graduate of Packer Collegiate Institute of Brooklyn, N. Y., and daughter of Sylvanus Lyon. She died September 2, 1880, at Tannersville, N. Y. Pope had no children by his first wife. He was married again on September 12, 1882, to Miss Sarah Margaret Baxter of St. Louis, Mo. They have five children: Henry P. Pope (born December 16, 1883, at St. Louis); Jean A. Pope (born March 6, 1885); Charles S. Pope (born January 19, 1887); Helen C. Pope (born February 3, 1889); and Lawrence A. Pope (born September 27, 1890, at Moline, Ill.).

On leaving college in 1869, Pope went into the manufacture of plows and agricultural implements

at Louisville, Ky., and was with the Louisville Agricultural Works for ten years, until same failed. He moved to St. Louis, and was with Deere Mansur & Co. ten years. In 1889 he moved to Moline, taking charge of the office of Deere & Co., which position he held five years. He resigned in 1894 to go into the real estate business, and has held interest in land business ever since, being president and treasurer of the East Moline Land Company since 1895. In 1898 he became assistant treasurer in the Deere & Co. Corporation, which position he now holds. In 1899 he became interested in the manufacture of cement, and in 1903 was made vice-president of the Iola Portland Cement Company, but sold his interest in that company in 1907. He is now president and active manager of the Midland Motor Company, manufacturing automobiles at East Moline (which concern succeeded the Deere Clark Motor Car Company). He is a Republican in politics, but has never held public office.

Prof. Joseph J. Skinner, C. E., Ph. D.

Retired from Teaching
Oneida, N. Y.

Joseph John Skinner, '69 S., was born in Putney, Vt., January 13, 1842. He is the son of John Langdon Skinner and Harriet Hayes (Noyes) Skinner, who were married March 3, 1841, and had no other children.

John Langdon Skinner (born February 11, 1803, at Westmoreland, N. H., died at Kenwood, now a part of Oneida, Madison County, N. Y., November 25, 1889) was a son of Timothy (born February 10, 1761, at Mansfield, then a part of Norton, Mass., son of Timothy (born September 10, 1724), descended from Thomas Skinner, who came from England about 1650 and settled in Malden, Mass., with two sons. He enlisted three times in the War of the Revolution. His mother was Ruth Warner, daughter of Joshua Warner, of Westmoreland, N. H. She was born November 6, 1770, and was married in September, 1790.

Harriet Hayes (Noyes) Skinner (born July 5, 1817, at Dummerston, Vt., died at Kenwood, N. Y., September 8, 1893) was a daughter of the Hon. John Noyes, of Putney, Vt., a graduate of Dartmouth College, and a member of Congress from Vermont, who was born April 2, 1764, and died at Putney, Vt., October, 1841, a descendant of Nicholas Noyes, born in 1616 and settled at Newbury, Mass., in 1634. Her mother, Polly (Hayes) Noyes (born February 8, 1780, died April 11, 1866, at Oneida, N. Y.), was daughter of Rutherford Hayes, and sister of the father of President Rutherford B. Hayes.

Skinner received most of his early education by school and private instruction, at Wallingford, Conn., and Oneida, N. Y. At one time he worked in a printing office; was also bookkeeper and cashier of a manufacturing and agricultural establishment. He entered Sheff in September, 1866, where he took the Civil Engineering Course.

He was married at Oneida, N. Y., January 7, 1872, to Miss Sophronia A. Bailey (born September 7, 1846, at Grand Detour, Ill., died January 29,

1908, at Oneida, N. Y.), daughter of Seba Bailey. They had one son: Theodore Hobart Skinner, born September 30, 1872, at Oneida, N. Y.; Massachusetts Institute of Technology, 1892; married Viola Cragin on February 1, 1900; present address, Oneida, N. Y.

In 1873 Skinner was a graduate student and teacher of Civil Engineering in the Sheffield Scientific School, in 1874 receiving the degree of C. E. He also became an honorary member of Berzelius Society during the same year. In 1874 he began a graduate course at Yale in the departments of Physics, Chemistry and Mathematics, obtaining the degree of Ph. D. in 1876. From 1874 to 1881 he was instructor of Mathematics at Sheff, and taught some classes in Physics, French and Astronomy. Visited France and England in 1875. In 1878 made observations at New Haven on the transit of Mercury, with the portable telescope of the Sheffield Scientific School, which observations were published in the Government Report of that transit in 1879, he being the only observer in New Haven to get all four of the contacts. In 1881 he became treasurer and manager of the American Electric Company of New Britain, Conn., and was with that company and its successor, the Thomson-Houston Electric Company of Boston, until the fall of 1884. In 1885, spent six months in experimental work in Professor Anthony's Physical Laboratory at Cornell Univer-

sity, Ithaca, N. Y. From 1885 to 1896 was instructor of Mathematics in the Massachusetts Institute of Technology, at Boston, and from 1896 to 1904 was assistant professor of Mathematics in the same. In November, 1909, he went to Italy, where he spent the following winter, returning via Lucerne, Strassburg, Brussels and Antwerp.

In politics Skinner is Republican. He has been a fellow of the American Association for the Advancement of Science, a member of the Connecticut Academy of Science, of the Wellesley Club, the Technology Club, and the M. P. Club of Harvard and Technology.

He published a text-book, "Approximate Computations," Henry Holt & Co., 1876, and the following articles: "Monumentum and Vis Viva," *Van Nostrand's Engineering Magazine*, 1877-78; "Why do Wells and Springs Overflow?" *Popular Science Monthly*, January, 1880; "Galvanometer Coils," *Electrical World*, June 18, and September 3, 1887.

Robert S. Van Rensselaer .

Surveying, Mapping, etc., and Borough Engineer of
Punxsutawney, Pa.

Robert Schuyler Van Rensselaer, '69 S., was born October 27, 1847, in Burlington, N. J. He is the son of R. S. Van Rensselaer and Sarah Charlton (Kid) Van Rensselaer, who were married in 1837, and had a daugh-

ter, Virginia Van Rensselaer, who is still living, and others who died in infancy.

R. S. Van Rensselaer (born in 1808, at Claverack, N. Y., died July, 1877, at South Amboy, N. J.) was a railroad superintendent with the Camden & Amboy Railroad, living at Bordentown, N. J. He was a son of Jacob Rutsen Van Rensselaer and Cornelia (De Peyster) Van Rensselaer.

Sarah Charlton (Kid) Van Rensselaer was born in 1812, at Philadelphia, Pa., and died in 1895, at New Brunswick, N. J.

Van Rensselaer prepared for Yale at the Burlington College in Burlington, N. J., and with Prof. G. A. Fischer of Rutgers College at New Brunswick, and entered Sheff in September, 1866, where he took the Civil Engineering Course. He is a member of Theta Xi.

He was married at Camden on December 29, 1879, to Miss Arietta Deborah Archer of Mount Holly, N. J. They have two children: LeRoy Campbell Van Rensselaer (born February 2, 1881, at Bellwood, Pa., married Ellen Estellow Rigg at Burlington, N. J., October, 1903), and Nina Archer Van Rensselaer (born at Uniontown, Pa., March 26, 1885).

Since January 14, 1907, Van Rensselaer has been engaged in surveying, mapping, etc., for the public, located at Punxsutawney, Pa. Van Rensselaer is junior warden of the Protestant Episcopal Church.

Charles A. Weed

Manufacturer of Clothing, Charles A. Weed & Co.

83-87 Court Street, and 66 Chenango Street, Binghamton,
N. Y.

Charles Alvah Weed, '69 S., was born in Binghamton, N. Y., December 1, 1846. He is the son of Waring Stephen Weed and Mary E. (Ayres) Weed, who were married June 6, 1842.

Waring Stephen Weed (born December 31, 1816, at Binghamton, N. Y., died October 1, 1900, at Binghamton) was a merchant living at Binghamton. He was a son of Stephen Weed (born September 8, 1785) of Stamford, Conn.

Mary E. (Ayres) Weed (born May 1, 1819, at New Canaan, Conn., died January 11, 1881, at Binghamton) was a daughter of Alvah Ayres (born May 8, 1795, died September 10, 1845) and Elizabeth (St. John) Ayres (born August 1, 1795, died July 12, 1873).

Weed prepared for Yale at the Olmstead School in Wilton, Conn., and entered Sheff in 1866, where he took the Select Course. He was a member of Theta Xi, and first lieutenant of the Undine Boat Club in Senior year.

He was married at Binghamton, N. Y., on May 13, 1873, to Miss Kate Stewart of Binghamton, Vassar '68, daughter of William Stewart. They have four children: Robert Stewart Weed (born March 27, 1874, married Mary A. Mahan, June 1, 1899); William Ayres Weed (born November 16, 1876); Mary Stewart Weed (born May 21, 1883, married

Gurdon H. Smith, November 8, 1906); and Charles Waring Weed (born March 25, 1885).

Ever since graduation Weed has been a manufacturer and wholesaler of men's clothing. He is now the head of the firm of Charles A. Weed & Co. He has traveled over most of the United States, also in Canada and Cuba. He is a Republican, has been a member of the Board of Education of the city of Binghamton, and is a member and a trustee of the Presbyterian Church. He belongs to the Binghamton Club and the Press Club of Binghamton.

William R. White

1529 Pine Street, Philadelphia, Pa.

No information has been obtainable of William Robert White, '69 S.

Horace F. Whitman

Manufacturer Confections and Chocolates

411-421 Race Street, and 3801 Walnut Street, Philadelphia, Pa.

Horace Franklin Whitman, '69 S., was born in Philadelphia, Pa., September 7, 1848. He is the son of Stephen F. Whitman and Lydia Ann (Rowland) Whitman, who were married in 1846, and had three other children: Rowland Whitman, a graduate of Polytechnic College, Philadelphia; Stephen F. Whitman, Jr. (died in Philadelphia in 1880); and Albert M. Whitman.

Stephen F. Whitman (born in 1823, at Doylestown, Pa., died in 1888, at Philadelphia) was a manufacturer living at Philadelphia.

Lydia Ann (Rowland) Whitman was born in 1823, at Rowlandville, Pa.

Whitman prepared for Yale at the Friend's Central School in Philadelphia, Pa., and entered Sheff in September, 1866, where he took the Select Course. He was a member of Theta Xi.

He was married at Philadelphia, Pa., October 6, 1871, to Miss Ida Susanna Cox, of Philadelphia. They have one daughter: Lillian W. (born May 21, 1873, married Judge Henry J. McCarthy, and was married a second time January 1, 1910, to Edward Woolman).

Since 1871, Whitman has been a member of the firm of Stephen F. Whitman & Son, manufacturers of confections and chocolates at 411-421 Race Street, Philadelphia, and is now the senior member of that firm. He is a Republican. He is a member of the Art and Union League Clubs of Philadelphia.

Willard W. Wight

Civil Engineer and Surveyor

Wellesley Hills, Mass.

Willard Wendell Wight, '69 S., was born in Natick, Mass., May 11, 1848. He is the son of Willard A. Wight and Lucy B. (Morse) Wight, who were married

in 1843, and had one other child: a daughter, Isabella L. Wight, a graduate of the State Normal School.

Willard A. Wight (born April 21, 1816, at Natick, Mass., died October 25, 1892, at Natick) was a farmer living at Natick. He was a New Englander of English ancestry.

Lucy B. (Morse) Wight (born January 25, 1818, at Natick, Mass., died November, 1892, at Natick) was of New England and English parentage.

Wight prepared for Yale at the high school in Natick, Mass., and entered Sheff in 1866, where he took the Civil Engineering Course.

He was married at Newton Centre, Mass., on January 2, 1879, to Miss Abbie G. Caldwell of Boston, Mass., a graduate of the State Normal School in the Class of 1872, and daughter of Edward G. Caldwell, an architect. She died September, 1892, at Natick, Mass. He has four children: Roger Willard Wight (born October 26, 1879, Massachusetts Institute of Technology '01); Isabel Caldwell Wight (born July 26, 1881, Smith '03, Simmons '04); Malcolm Gardner Wight (born March 27, 1884, Massachusetts Institute of Technology '06); and Gwendolen Ross Wight (born February 7, 1886, Smith '08).

Wight has been assistant engineer on the Athol & Enfield Railroad; division engineer, Boston & Maine Railroad; chief engineer of five electric street railroads; engineer for towns of Natick, Framingham, Wayland, Wellesley, Needham, and Dover. Wight

is a Republican. He was assessor, 1882-89; water commissioner; sewer commissioner; chairman selectmen, 1894-96. He is a member of Meridian Lodge, A. F. & A. M.; Parker Royal Arch Chapter, and Natick Commandery, Knights Templar; "Mystic Shriner."

Frederick E. Willits

Farming, Banking and Insurance.

Glen Cove, N. Y.

Frederick Everett Willits, '69 S., was born in Glen Cove, N. Y., September 13, 1846. He is the son of James Willits and Anna (Titus) Willits, who were married November 23, 1837, and had two other sons: Henry Titus Willits (born at Glen Cove, October 27, 1841), and Thomas Everett Willits (born at Glen Cove, June 15, 1845).

James Willits (born June 10, 1813, at Westbury, N. Y., died May 1, 1882, at Glen Cove) was a farmer, of English parentage.

Anna (Titus) Willits (born January 11, 1812, at Westbury, N. Y., died May 11, 1882, at Glen Cove) was of English descent.

Willits prepared for Yale at the Cary Institute, Poughkeepsie, N. Y., and entered Sheff in September, 1866. Was Class president in his Senior year, and has served as graduate Class secretary.

He was married at Jericho, N. Y., on September 25, 1872, to Miss Anna Willets, daughter of William Willets, a farmer of Jericho, N. Y. They have had

four children: Everett F. Willits (born August 14, 1874, at Glen Cove, died August 20, 1902, at Glen Cove); Martha Valentine Willits (born February 2, 1876, at Glen Cove, died August 24, 1882, at Glen Cove); Elizabeth Eames Willits (born July 27, 1878, a graduate of Swarthmore, died June 30, 1903, at Venice, Italy); and James Willits (born October 14, 1880, at Glen Cove, married Anna K. Valentine, February 14, 1906).

Willits has always lived on the farm homestead on which he was born, and has continued farming. He has been interested in banking as president of the Glen Cove State Bank, director of the Nassau County Bank, director of the Bank of Hempstead Harbor, and trustee and treasurer of the Roslyn Savings Bank. He has also been interested in insurance as director and treasurer of the Glen Cove Mutual Insurance Company, and director of the Westchester Fire Insurance Company of New York. He has been vice-president of the Federal Safe Deposit Company of New York, and a director of the Nassau Suffolk Bond and Mortgage Guarantee Company of Mineola, N. Y. In politics, Willits is a Republican, being supervisor of the town of Oyster Bay. He is a member of the Society of Friends, and belongs to the Nassau Country Club.

BIOGRAPHIES

1870 S

James W. Abbott, M. A.

Mining Engineer

Pioche, Nevada

James Whitin Abbott, '70 S., was born in Whitinsville, Mass., August 29, 1846. He is a son of Jacob Jackson Abbott and Margaret Fletcher (Whitin) Abbott, who were married September 16, 1845, and had five other children: Jacob Jackson Abbott, Yale '72 S., of Denver, Colo.; Helen Louise Abbott (died August 22, 1892); William Whittlesey Abbott, Yale '77 S. (died July 8, 1899, at Worcester, Mass.); Paul Whitin Abbott, Yale '83 S., of Boston, Mass.; and another daughter, who died in early infancy.

Jacob Jackson Abbott (born July 17, 1813, at Peacham, Vt., died December 3, 1878, at New Haven, Conn.) was a clergyman, installed from 1846 to 1864 at Bennington, Vt.; from 1864 to 1865 at Uxbridge, Mass.; was superintendent of the Washington office of the Christian Commission until after the close of the Civil War, and from 1865 to 1875 was installed at Yarmouth, Me. He graduated at Dartmouth College in the Class of '39. In 1874 he received the honorary degree of D. D. from Bowdoin College, of which for many years he had been a trustee. His parents were born, lived, and died in Vermont.

Margaret Fletcher (Whitin) Abbott was born September 4, 1817, at Whitinsville, Mass., where her parents were born, lived, and died.

Abbott prepared for Yale at Phillips Academy, Andover, Mass., graduating there in the Class of 1864, and entering Yale College that year in the Class of 1868, with which he graduated. Entering Sheff immediately after graduation, he received the degree of Ph. B. with the Class of 1870, and in 1871 he received the degree of M. A. from Yale.

He was married at Lake City, Colo., September 24, 1877, to Florence Wood of Topeka, Kan., daughter of Hon. S. N. Wood, a man of great distinction in Kansas history. Miss Wood graduated in the Class of 1876 at Bethany College, Topeka, Kan., receiving the Bishop Vail medal. They have two children: Charles Whitin Abbott (born at Lake City, Colo., December 5, 1878, married October 15, 1908, to Tilda Bartlett); and Ruth Beatrice Abbott, Wellesley '04 (born March 24, 1881, married June 20, 1906, to Edward H. Letchworth, now deputy attorney general of New York, to whom has been born one child, Edward H. Letchworth, Jr., born January 9, 1909).

In 1871-72 Abbott was assistant engineer, Kings County Town Survey, under Samuel McElroy, with headquarters at Brooklyn, N. Y.; 1872-74, engineer estate of William Walter Phelps, Bergen County, N. J., with headquarters at Hackensack and Englewood; 1875-83, mining engineer in general practice, and deputy United States mineral surveyor, Lake City, Colo.; 1885-95, clerk of District Court, seventh

Judicial District, State of Colorado, with office at Ouray, Colo.; 1895-96, manager Ybarra Gold Mining Company, Calmalli, Lower California, Mexico; 1896-1900, general practice as mining engineer in California, Oregon, and Colorado; August, 1900, to June 30, 1905, special agent for the Rocky Mountain and Pacific Coast Division, Office of Public Road Inquiries, United States Department of Agriculture; since June, 1905, in general practice as mining engineer with headquarters at Denver, Colo., Los Angeles, Cal., and Pioche, Nev.

Abbott is a member of the American Institute of Mining Engineers. He has always been a consistent Republican.

His published works are: "The Hydraulic Elevator in Placer Mining," *Engineering and Mining Journal*, March, 1898; a technical article on "Mountain Road Construction," Year Book of the United States Department of Agriculture, 1900; "Mountain Roads as a Source of Revenue," showing how the United States surpasses Europe in scenic attractions, if developed in this country as they have been there, and a technical article on "The Use of Mineral Oil in Road Construction," the last two published respectively in 1901 and 1902 in the Year Book of the United States Department of Agriculture; a technical article on "Roads for Mines," *Engineering and Mining Journal*, May 16-23, 1903; also a large number of articles on different subjects, principally

technical, published in periodical literature in various parts of the United States.

Henry M. Bailey

Auditor

Security National Bank and 2109 Nebraska Street, Sioux City,
Iowa.

Henry Moore Bailey, '70 S., was born in Rutland, Vt., September 18, 1848. He is the son of Thomas R. Bailey and Sophia E. (Moore) Bailey.

Thomas R. Bailey was born January 17, 1822, at Newbury, Vt., and died March, 1897, at Rutland, Vt.

Sophia E. (Moore) Bailey was born August, 1825, at Hinsdale, N. H., and died December, 1896, at Rutland.

Bailey prepared at the high school in Rutland, Vt., and entered Sheff in 1867, where he took the Select Course.

He was married June 21, 1888, at Sioux City, Iowa, to Miss Mary L. Davis, a graduate of Smith College, daughter of S. T. Davis, an attorney. They have had four children: George D. Bailey (born June 6, 1890); Ruth S. Bailey (born December 10, 1894); Thomas F. Bailey (born November 23, 1896); and Donald M. Bailey (born March 23, 1900).

In 1906 Bailey became auditor for the Security National Bank in Sioux City, Iowa, which position he still holds.

Charles T. Ballard

Flour Manufacturer, President, Ballard & Ballard Co.

Glenview, Jefferson County, Ky., and 910-916 East Broadway,
Louisville, Ky.

Charles Thruston Ballard, '70 S., was born in Louisville, Ky., June 3, 1850. He is a son of Andrew Jackson Ballard and Frances Ann (Thruston) Ballard, who were married April 27, 1848, and had four other children: Bland Ballard (born October 29, 1851, died August 15, 1852); Abigail Churchill Ballard (born June 24, 1853, studied at Vassar, died April 2, 1874, at Mentone, France), Samuel Thruston Ballard (born February 11, 1855, a graduate of Cornell in the Class of 1878); and Rogers Clark Ballard-Thruston, '80 S.

Andrew Jackson Ballard (born September 22, 1815, at Shelby County, Ky., died August 17, 1885, at Louisville, Ky.) was a lawyer living at Louisville, Ky. He was at one time a member of the Kentucky Legislature; also United States Commissioner and Clerk of the United States Circuit and District Courts from the District of Kentucky, 1861-69. He graduated at the Transylvania University. He was a son of James Ballard and Susan (Cox) Ballard. His father and grandfather came from Virginia with Slaughter's Regiment in 1779. His mother's family came to Kentucky from Virginia (now West Virginia) about the same time.

Frances Ann (Thruston) Ballard (born November 30, 1826, at Louisville, Ky., died April 30, 1896, at Vienna, Austria) was a daughter of Charles William Thruston and Mary Eliza (Churchill) Thruston, both of whom traced their descent to early Virginia families.

Ballard prepared for Yale at Gen. William H. Russell's Military School in New Haven, Conn., and

entered Sheff in 1867 with his Class, where he took the Select Course. He was a member of Theta Xi, and was captain and rowed bow oar on the Sheff Boat Club in Senior year.

He was married at New Orleans, La., on April 24, 1878, to Miss Emilina Modest (Mina) Breaux, of New Orleans, a graduate of Convent Sacred Heart, N. Y., in the Class of 1876, and daughter of Gustave Aurelian Breaux, a planter and lawyer (graduate of the Harvard Law School) of Lafayette, La. They have had eight children, all born in Louisville: Abby Churchill Ballard (born February 16, 1879, married June 1, 1899, to Jefferson Davis Stewart); Emilie Locke Ballard (born September 18, 1880, died December 10, 1886); Mary Thruston Ballard (born November 25, 1882, died February 5, 1884); Charles Mynn Thruston Ballard (born November 28, 1886, married Miss Paula Beauchamp, September 28, 1908); Gustave Breaux Ballard (born October 7, 1888); Fanny Thruston Ballard (born April 30, 1890); Churchill Ballard (born April 30, 1890, died February 12, 1891); Mina Ballard (born July 13, 1893).

Ballard was with Professor Marsh's first party across the plains in 1870, and has since traveled extensively. He is a Republican in politics, and is a member of the Protestant Episcopal Church. He is a member of the Pendennis Club and the Country Club of Louisville, the University Club of New York

City, the Chicago Club of Chicago, Ill., and the Missouri Athletic Club of St. Louis, Mo.

Thomas G. Bennett

President of the Winchester Repeating Arms Company
423 Prospect Street, New Haven, Conn.

Thomas Gray Bennett, '70 S., was born March 22, 1845, at New Haven, Conn. He is the son of Thomas Bennett and Mary Ann (Hull) Bennett, who were married April 25, 1838.

Thomas Bennett (born February 17, 1815, at New Haven, Conn., died April 6, 1859) was a lawyer of New Haven, Conn. His father, Joseph Bennett, born December 25, 1788, and his mother, Emilia (Lyon) Bennett, born February 6, 1787, were married September 9, 1810.

Mary Ann (Hull) Bennett (born April 29, 1818, at New Haven, Conn., died January 28, 1902) was the daughter of Elisha Hull and Hulda (Ball) Hull.

Bennett prepared at General Russell's School in New Haven, Conn., and entered Sheff in 1866, where he took the Civil Engineering Course. He was a member of Book and Snake.

He was married on May 9, 1872, at New Haven, Conn., to Miss Hannah Jane Winchester, daughter of Oliver Fisher Winchester, a manufacturer. They have three children: Hope Bennett; Winchester Bennett, '97 S. (married Miss Susan Silliman Wright); and Eugene Bristol Bennett, '04 S.

Bennett has been president of the Winchester Repeating Arms Company since 1890. He was first lieutenant and adjutant of the Connecticut Volunteers, August 28, 1862; second lieutenant of the Twenty-eighth Connecticut Volunteers, November 25, 1862; first lieutenant of the Twenty-ninth Connecticut Volunteers, January 29, 1864; and captain of the Twenty-ninth Connecticut Volunteers, September 27, 1864. He was mustered out of service in November, 1865. He served as a member of the Yale Corporation, elected by the alumni, from 1884 to 1902, when he declined to stand as a candidate for reëlection.

Townshend S. Brandegee

Botanist
Berkeley, Cal.

Townshend Stith Brandegee, '70 S., was born in Berlin, Conn., February 16, 1843. He is the son of Elishama Brandegee and Florence (Stith) Brandegee, who had eight other children: Charles Brandegee, Florence S. Brandegee, Robert B. Brandegee, Emily Brandegee, Katherine Brandegee, Henry Brandegee (died at Helena, Mont.), Arthur Brandegee, and Edward N. Brandegee, '86.

Elishama Brandegee (born at Berlin, Conn., died at Berlin, Conn., in 1884) was a physician. He graduated from Yale in the Class of 1833, and the Yale Medical School in 1838.

Florence (Stith) Brandegee (born at Florence, Italy, died at Berlin, Conn.) was a daughter of the consul at Tunis. She belonged to the Bolling family of Petersburg, Va.

Brandegee served two years as a private in Co. G, 1st Connecticut, during the Civil War. He prepared himself for college, and entered Sheff with his Class, where he took the Civil Engineering Course.

He was married at San Diego, Cal., May 29, 1889, to Miss Katherine Layne, a graduate of the Medical Department of the University of California in the Class of 1878, and daughter of Marshall Bolling Layne. They have no children.

Brandegee has been civil engineer with the Atchison, Topeka & Santa Fe Railroad, and with the Denver & South Park Railroad; assistant topographer and botanical collector (one year) with Hayden's exploring expedition; assistant on forest survey of Adirondacks, N. Y.; forest topographer for Northern Transcontinental Survey in Yakima Region, Washington; forest map of Teton Reservation for United States Geological Survey. He has collected plants throughout the whole of Lower California, and the entire western United States for his private herbarium.

Brandegee is an independent Republican. He has been county surveyor of Fremont County, Colo.; city engineer of Canon City, Colo.; member of the

Board of Education of San Diego, Cal.; now honorary curator of the University of California herbarium. He is a member of the California Academy of Natural Sciences, and the San Diego Academy of Natural Sciences, and a corresponding member of the Philadelphia Academy of Natural Science, and the New York Lyceum of Natural History.

His published works include numerous botanical papers, etc., in *Proceedings of California Academy*, in *Zoe*, and other botanical magazines, and publications of the University of California. His herbarium and botanical library were presented to the University of California.

Daniel S. Brinsmade

President and Manager, Ousatonic Water Power Company
Derby, Conn.

Daniel Seymour Brinsmade, '70 S., was born in Trumbull, Conn., February 17, 1845. He is the son of Captain Daniel Styles Brinsmade and Catherine (Malette) Brinsmade, and has one brother, James R. Brinsmade of Derby, Conn.; and one sister, Mrs. James R. Middlebrook of Suffield, Conn.

Captain Daniel Styles Brinsmade (born February 22, 1808, died May, 1872) was the seventh generation in direct descent from William Brinsmade, who came from England to Dorchester, Mass., in 1630.

Catherine (Malette) Brinsmade was daughter of Robert Mallette of Trumbull, Conn., who was a grandson of John Mallette, a Huguenot refugee.

Brinsmade prepared for Yale at the Gunnery School, Washington, Conn., and entered Sheff in 1867, where he took the Engineering Course, and was a member of Berzelius.

He was married on December 28, 1870, to Miss Janette S. Pardee of Trumbull, Conn. They have had five children: Frances Louise Brinsmade (married to Clifford C. Gilbert); Daniel Edwards Brinsmade, '96 S. (married on June 9, 1904, to Miss May Morgan; daughter of D. N. Morgan); Carolyn Calhoun Brinsmade; Helen Brinsmade (married William J. Morgan, February, 1903); and Wallace Seymour Brinsmade, '08 S.

Brinsmade is a Republican. He has been president of the Huntington Board of Education for the past ten years, president of the Board of Directors of the Shelton Public Library, town treasurer, a member of the State Legislature, 1882, member of the State Senate, 1909. He is a member of the Second Congregational Church of Derby, and member of the Masonic order and I. O. O. F., and the Union League Club.

Charles P. Brooks

Civil and Mining Engineer

Residence, 280 A Street, Salt Lake City, Utah

Office, 228 Dooly Block, Salt Lake City, Utah

Charles Peter Brooks, '70 S., was born in Washington Ville, Orange County, N. Y., August 21, 1851. He is

the son of Charles Edward Brooks and Adeline (Cannon) Brooks, who were married March 18, 1828, and had ten other children, four of whom are now living: Ann E. Brooks (died January 18, 1910); John I. Brooks; Harrison Brooks; Henry C. Brooks; Thomas L. Brooks (died May 17, 1900, at Washington Ville); Madison Brooks (died April 21, 1849, at Washington Ville); Fletcher M. Brooks (died March 27, 1902, at Washington Ville); Edward C. Brooks (died September 12, 1883, at New York City); Francis D. Brooks (died December 2, 1879, at New Hampton, N. Y.); and Mary C. Brooks (died April 27, 1881, at Brooklyn, N. Y.).

Charles Edward Brooks (born August 12, 1805, at Washington Ville, N. Y., died July 11, 1875, at 149 East Eighty-seventh Street, New York City) was a farmer living at Washington Ville; was supervisor of the town of Blooming Grove, Orange County; superintendent of the poor of Orange County, N. Y., 1864-70; and justice of the peace. He graduated at Dr. Brown's School in Newburgh, N. Y. He was a son of John I. and Hannah Brooks, and a descendant of Jonathan Brooks, who was of English descent and who came to this country from the north of Ireland, and settled in New York about 1729 in company with the ancestors of Gov. DeWitt Clinton, to whom he was related.

Adeline (Cannon) Brooks (born January 18, 1809, at New York City, died January 11, 1875, at New York City) was a daughter of Mott and Mary (Smith) Cannon. She was of Huguenot descent, her ancestors having been driven from France about 1700 and settling in New York City.

Brooks, when fourteen years of age, attended school at Chester, N. J., for one term, then accompanied the assistant principal of Chester Academy to New Paltz, N. Y., and finished the school year

there. In 1866, he entered Dr. Stiles' School at Deckertown, N. J., of which Mr. S. S. Hartwell, '59, was principal, and upon his advice, Brooks entered Sheff in 1867, where he took the Civil Engineering Course.

He was married at Salt Lake City, Utah, on September 28, 1876, to Miss Millicent Amelia Godbe, who died September 27, 1889, and who was a daughter of William Samuel Godbe (died August 1, 1902), a merchant and mining operator at Salt Lake City. He has three children by his first wife: Clara Godbe (graduated from Pratt Institute, Brooklyn, N. Y., married Harry J. Pitts, July 2, 1902, at Salt Lake City); Miriam Brooks (a student at the New England Conservatory of Music); and Marjorie Brooks (married Levi J. Riter, June 8, 1910). He was married again, on December 15, 1891, to Miss Miriam Godbe, a sister of his first wife.

Brooks entered the city engineer's office in New Haven, December, 1870. In June, 1872, he became transitman and draughtsman on the Texas & Pacific Railroad, traveling from Denver to El Paso overland with mule teams, working from there west to the Pima villages, Arizona (west of Tucson). He returned East by the way of Texas, traveling with mule team, in June, 1873, worked at main office of the company until November, then went to Chicago and New York. In company with his present partner, Mr. R. H. Browne, in March, 1874, he went to

Salt Lake City, where they opened an office as civil and mining engineers, under the name of Browne & Brooks. They are engineers for a number of mines, among the more prominent of which are the Silver King, Daly, Judge, Grand Central, and Bullion Beck. Brooks is also United States deputy, and mineral surveyor for Utah, Idaho, Nevada and California.

He has been a Republican, but is not strongly partisan. He was a member of the Salt Lake City Board of Health, 1890-1903; county surveyor for Salt Lake County, 1891-92; special engineer for planning and constructing sewerage system of Salt Lake City, 1888-91; a member of Board of Public Works from 1905 to present time, his term expiring January 1, 1912. He is one of the charter members of the University Club of Salt Lake City.

Thomas E. Calvert

Chief Engineer, Chicago, Burlington & Quincy Railroad
Hinsdale, Ill., and 209 Adams Street, Chicago, Ill.

Thomas Elwood Calvert, '70 S., was born at Newtown Square, Delaware County, Pa., September 10, 1849. He is the son of Isaac Anderson Calvert and Phoebe (Holland) Calvert, who were married December 23, 1847, and had one other son, William R. Calvert, who is a farmer at Newtown Square, Pa.

Isaac Anderson Calvert (born October 16, 1820, at Upper Darby, Delaware County, Pa., died February 25, 1880, at Newtown Square, Pa.) was a farmer living at

Newtown Square, and was a descendant of Quakers from William Penn's colony.

Phoebe (Holland) Calvert (born August 1, 1826, at Marple, Delaware County, Pa., died April 27, 1902, at Lincoln, Neb.) was descended from Quakers and farmers who came originally from England.

Calvert lived on a farm when not away at school. He prepared for Sheff at Treemont Seminary, Norristown, Pa., entering in the fall of 1867, and taking the Civil Engineering Course.

He was married at Weeping Water, Neb., on November 8, 1877, to Miss Eva Cecilia Shelton of Shelton, Conn. (born November 17, 1852, died May 12, 1891, at Lincoln, Neb.), a graduate of Tabor College, Iowa, and a daughter of Minor Shelton, a farmer at Weeping Water, Neb. They had no children.

Since leaving college he has been with the Chicago, Burlington & Quincy Railroad, first as assistant engineer, later as chief engineer of lines west of the Missouri River, about twenty years as general superintendent of lines west of Missouri River, and since September 1, 1904, chief engineer of that system.

*Frederick H. Churchill

Electrician

Died 1881

Frederick Hosea Churchill, '70 S., son of William

A. and Sarah B. Churchill, was born in New Britain, Conn., March 27, 1848.

After graduating he began to study law and continued in a private office for nearly three years, after which he spent a year at the Harvard Law School, graduating in 1875. He was admitted to the bar the same year, and practiced his profession successfully in New Britain until 1880. Previous to this date, however, he became deeply interested in the science of electricity, and had made a trip to Europe with the special view of obtaining information concerning the uses and adaptability of the electric light. His studies and researches resulted in his leaving his chosen profession and organizing at New Britain the American Electric Company, a corporation now in operation and of which he was the manager up to the time of his death, which occurred March 4, 1881.

Mr. Churchill married Annie, only child of the late William H. Smith of New Britain, who, with three children, survives him.

Dorr Clark

Retired, Ranchman
Green Bay, Wis.

Dorr Clark, '70 S., was born in Clarkson, N. Y., March 9, 1849. He is the son of Norris Greenleaf Clark and Grace Hubbard (Plumb) Clark, and brother of A. E. Clark, '75 S., and Grace (Clark) Olmsted.

Norris Greenleaf Clark (born in Westerly, R. I., March 30, 1818, died July 22, 1876, at Batavia, N. Y.) was a physician residing at Batavia.

Grace Hubbard (Plumb) Clark was born in West Haven, Conn., March 17, 1807, and died March, 1894, at Batavia, N. Y.

Clark prepared for Yale at Gen. Russell's Military School in New Haven, Conn., and entered Sheff in September, 1867, where he took the Engineering Course, and was a member of Book and Snake.

He was married at Green Bay, Wis., on May 4, 1875, to Miss Allie C. Robinson, daughter of Albert C. Robinson, a newspaper editor. They have two daughters: Grace Robinson (married in October, 1901, to William Smith Williams); and Florence Wilcox Clark (a graduate of Bryn Mawr in the Class of 1902).

For twenty-five years Clark was a cattle man in Texas and Montana; for six years, a farmer in Virginia. He is now retired. In politics he is a Democrat. He is a member of the Elks.

Alfred R. Conkling

Lawyer

41 East Sixtieth Street, New York City, and 76 William Street, New York City

Alfred Ronald Conkling, '70 S., was born in New York City, September 28, 1850. He is a son of Fred

A. Conkling and Eleonora (Ronalds) Conkling, who were married October 19, 1848, and had three other children: Frederick Gray Conkling, '69 (died April 3, 1871, at New Orleans, La.); Howard Conkling (born December 7, 1855, a graduate of the New York University Law School); and Laura Ronalds Conkling.

Fred A. Conkling (born August 16, 1816, at Canajoharie, N. Y., died September 19, 1891, at New York City) was a merchant with Conkling, Barnes & Shepard, a member of the New York Legislature, 1856-59, and a member of Congress, 1861-63. He was a son of Judge Alfred Conkling and Eliza (Cockburn) Conkling, who were married about 1800.

Eleonora (Ronalds) Conkling (born April 24, 1825, at New York City, died November 21, 1879, at New York City) was a daughter of Thomas A. Ronalds and Maria D. (Lorillard) Ronalds, who were married about 1810.

Conkling attended boarding school at Morristown, N. J., and Yonkers, N. Y., and was prepared for Yale at the school of Prof. G. W. Clarke in New York City, entering Sheff in Junior year, 1868, and taking the Mining and Metallurgy Course.

He was married at New York City, on April 11, 1896, to Miss Ethel Eastman Johnson, daughter of Eastman Johnson (died April 5, 1906), a painter of landscapes, interiors, and portraits. They have three daughters: Murril R. L. Conkling (born in Paris, March 16, 1897); Olga L. G. Conkling (born in New York City, May 3, 1898); and Vivian E. H. Conkling (born June 24, 1902).

Conkling took one semester in Natural Science at the University of Berlin, Germany. He was geologist in United States Engineer Corps surveys, in 1875-77. He graduated at Columbia College, Law School, New York City, in 1879. In 1881-82, he was United States assistant district attorney; 1887-88, New York City alderman; 1892 and 1895, member of New York Legislature. He is a Republican. He is a member of the Episcopal Church, and is a member of the National Municipal League of New York City, the Metropolitan and Republican (formerly, 1896-1903, City Club) Clubs of New York City and the Country Club of Tuxedo, N. Y.

He has made three trips to the far West and three trips to Florida. He has traveled over Europe and the East, and in Mexico; also to the Chicago, Buffalo and St. Louis World's Fairs. He is a trustee for owners of real estate in New York City and is in business at 76 William Street. He makes occasional contributions to newspapers.

His published works are: "Appleton's Guide to Mexico," January, 1884 (one volume, five editions); "Life and Letters of Roscoe Conkling," February, 1889 (one volume), C. L. Webster & Co., New York City; "City Government in the United States," September, 1894, D. Appleton & Co. (five editions); "Handbook for Voters," a pamphlet, October, 1894, D. Appleton & Co.

Justus H. Grant

Engineer, City of Rochester

78 South Goodman Street, and City Hall, Rochester, N. Y.

Justus Herbert Grant, '70 S., was born in Auburn, N. Y., June 19, 1849. He is the son of Justus Lewis Grant and Abbey Janette (Mills) Grant, who were married October 27, 1839, and had three other children: Viola J. Grant (died in 1885); J. Lewis Grant, Jr.; and Albert E. Grant (died July 22, 1905).

Justus Lewis Grant (born November 4, 1818, at Nashua, N. H., died October 19, 1878, at Rochester, N. Y.) was a railroad manager living at Auburn, N. Y. He was a son of Justus Fales Grant, born in 1799, at Wrentham, Mass., and Hannah (Hale) Grant.

Abbey Janette (Mills) Grant, born June 18, 1818, at Preston, Chenango County, N. Y., is a daughter of William Mills, of English descent.

Grant prepared for Yale at the Auburn Academy, Auburn, N. Y., and entered Sheff in September, 1868, where he took the Civil Engineering Course.

He was married at Rochester, N. Y., on April 29, 1879, to Miss Caroline Louise Updike, daughter of Scott William Updike. They have three children, one son having died in infancy: Laura Annesley Grant (born March 10, 1880); Charles Hastings Grant (born September 25, 1883); and Richard Herbert Grant (born April 9, 1887).

Grant is an independent Republican. He was commissioner of public works, Rochester, N. Y.,

1900-01. Since January 8, 1906, he has been special assistant engineer of the city of Rochester. He is a member of the American Society of Civil Engineers, and the Engineering Society of Rochester, N. Y. He is a member of the Unitarian Church.

Charles S. Hastings, Ph. D.

Professor of Physics, Yale University

248 Bradley Street, New Haven, Conn.

Charles Sheldon Hastings, '70 S., Ph. D. '73, was born November 27, 1848, at Clinton, N. Y. He is the son of Panet Marshall Hastings and Jane (Sheldon) Hastings, who were married June 22, 1843.

Panet Marshall Hastings (born August 17, 1816, at Clinton, N. Y., died June 4, 1898, at New Rochelle, N. Y.) was for nearly fifty years the leading physician in Clinton. He graduated from Hamilton College in 1838, and during his residence in Clinton gave several courses of lectures at this college. He was the son of Dr. Seth Hastings, Jr., born at Washington, Conn., August 23, 1780, the eldest son of Dr. Seth Hastings, who was born at Hatfield, Mass., December 6, 1745. When seventeen years of age Panet Marshall Hastings moved with his parents to Clinton. He was long and prominently connected with the Hartford Hospital and the Old People's Home in Hartford, and the Hospital possesses a portrait of him.

Jane (Sheldon) Hastings (born June 25, 1816, at Hartford, Conn., died September 12, 1889, at Hartford, Conn.) was of New England parentage on both her father's and her mother's side.

Hastings prepared at the Hartford Public High School, and entered Sheff with his Class. He was a member of Berzelius.

He was married on June 28, 1878, at Hartford, Conn., to Miss Elizabeth T. Smith, daughter of Elisha T. Smith. They have one child, Katharine Panet Hastings.

After three years of postgraduate study, Hastings received the degree of Doctor of Philosophy from Yale in 1873. He then went abroad, and spent two years in the study of physics at the German Universities of Heidelberg and Berlin, and one year in Paris at the Sorbonne. He was made an *Officier de l'Instruction Publique* in 1889 and a corresponding member of the *Societa degli Spettroscopisti Italiani*. On his return to America in 1876 he accepted the associate professorship of Physics at Johns Hopkins of Baltimore, remaining there for eight years, until 1884, when he was called to the chair of Physics in Sheff. Professor Hastings is a member of the National Academy of Sciences, a Fellow of the American Association for the Advancement of Science, and a member of the Graduates Club of New Haven.

He is the co-author with F. E. Beach of a "Text Book on General Physics," published by Ginn & Co., Boston, in 1899, and of "A Consideration of the More Familiar Phenomena of Optics," published by Charles Scribner's Sons, New York, in 1901.

***William A. Hinds**

Editor and Publisher

Died 1910

William Alfred Hinds, '70 S., was born in Enfield, Mass., February 2, 1833. He was the son of Samuel Hinds and Lucy (Amsden) Hinds, who were married January 10, 1826.

Samuel Hinds (born March 1, 1798, at Greenwich, Mass., died February 16, 1873, at Belchertown, Mass.).

Lucy (Amsden) Hinds (born October 31, 1800, at Petersham, Mass., died October 9, 1877, at Belchertown, Mass.).

Hinds was a printer, stenographer and writer before entering college, and prepared himself for Yale, entering Sheff in 1867, and taking the Select Course.

He was unmarried.

Hinds was editor of the *Oneida Circular*, 1870, 1871, 1872, and associate editor of the *American Socialist*, 1876-79. He was president of the Madison County, N. Y., Chess Club.

His published works include: "American Communities and Co-operative Colonies," 1878, revised edition, 1902, second revision, 1908.

Hinds had been president of the Oneida Community since July, 1903. He died May 28, 1910, at his home in Kenwood, N. Y.

***Edward VanB. Hoes**

Banker and Coal Dealer

Died 1904

Edward VanBuren Hoes, '70 S., son of John Van-Alen Hoes, a lawyer, formerly of Kinderhook, N. Y., and Fannie (Reynolds) Hoes, was born in Ottawa, LaSalle County, Ill., February 16, 1849.

After graduation he was a banker in Lake City, Colo., until about 1870, then in Chicago, Ill., and afterwards in Kingston, New Mexico, for some years in Hermosilla, Mexico, and for the last three years of his life engaged as general manager of the Pacific Coal Company of Sonora, Mexico, with general offices in Philadelphia, Pa., and in New York City. He died at Asbury Park, N. J., August 4, 1904, at the age of fifty-four years.

He married, February 16, 1885, Harriette, daughter of John and Mary (Morgan) Haynes, who survives him with no children.

William R. Hopson

Real Estate

224 Washington Avenue, Bridgeport, Conn.

William Rufus Hopson, '70 S., was born in Kent, Conn., May 24, 1848. He is the son of George Hopson and Ann Elisa (Fuller) Hopson, and brother of Rufus Fuller, Linn Fuller, and Mrs. Julia Fuller Barnum.

George Hopson (born February 16, 1824, at Kent, Conn.) was a manufacturer with George Hopson & Co., residing at Kent, Conn. He was of American ancestry.

Ann Elisa (Fuller) Hopson (born in 1822, at Kent, Conn., died December 6, 1898, at Kent, Conn.) was also of American parentage.

Hopson prepared for Yale at Mr. Strong's School, Bridgeport, Conn., and entered Sheff in September, 1867, where he took the Select Course.

He was married at Fall River, Mass., on October 15, 1881, to Miss Mariana Birch Slade, daughter of A. K. Slade of Fall River. They have three daughters: Elizabeth Fuller Hopson (a graduate of Vassar in the Class of 1905); Ann Elisa Canedy Hopson; and Dorothy Slade Hopson.

Henry C. Humphrey

Chemist, Corn Products Refining Company

551 West 149th Street, and 26 Broadway, New York City

Henry Correll Humphrey, '70 S., was born in East Windsor Hill, Conn., June 10, 1848. He is the son of Henry Moore Humphrey and Ann O. Humphrey.

Henry Moore Humphrey (born at Philadelphia, Pa.) was a physician, a graduate of Rush Medical College.

Ann O. Humphrey was born in New York City of American parentage.

Humphrey prepared for college at Stamford, Conn., attended Amherst for two years, and entered Sheff in 1868, where he took the Chemistry Course.

He was married in 1870, to Miss Florence Barnes Thurston of Stamford, Conn. They had one daughter, Mary Humphrey (born 1872, at Dresden, Saxony). He was married again in July, 1892, to Miss Ada Eugenie Stout of Brooklyn, N. Y. They have one son, Henry Correll Humphrey, Jr. (born September 19, 1895, at Brooklyn, N. Y.).

Humphrey has been chemist with the Corn Products Refining Company of New York City, since 1901.

Augustus W. Littleton

Retired

Care London City and Midland Bank, Ltd., London, E. C.,
and 38, St. Margaret's Road, Oxford, England

Augustus Washington Littleton, '70 S., was born February 27, 1848, at Edgefield, S. C. He is the son of Jacob Littleton and Maria (Brady) Littleton, who were married June 1, 1847, and had one other child, a daughter, who died September, 1858, at the age of six years, in Peoria, Ill.

Jacob Littleton (born February 6, 1811, at Edgefield, S. C., died April 10, 1890, at Lincoln, Ill.) was of English parentage, and spent the greater part of his life in Peoria, Ill.

Maria (Brady) Littleton (born December 14, 1827, at St. Regis, N. Y., died July 6, 1869, at Mossville, Ill.) was of Irish descent.

Littleton prepared at the high school in Peoria, Ill., and entered Sheff in September, 1866, where he

took the Civil Engineering Course and was a member of Book and Snake.

He was married March 4, 1884, at Peoria, Ill., to Miss Mary Gibson Griswold, daughter of Matthew Griswold. They have one daughter, Julia Waters Littleton, a graduate of St. Mary's School, Knoxville, Ill.

After leaving Yale, Littleton lived for some two years on his father's farm near Mossville, Ill., after which he went to St. Louis to serve an apprenticeship in the gas business. That done, he was appointed to the superintendency of the Peoria Gas Light & Coke Company, where he remained one year, and thence, in the same capacity, he went to Hannibal, Mo., for a year and a half. In March, 1876, he moved to Quincy, Ill., where he was general manager of the gas and electric companies for twenty-two years, resigning in June, 1898. With his family he then went abroad and leisurely traveled over the greater part of Europe for two and a half years. In December, 1900, he returned to America and lived in California until March, 1904, when he went abroad again, soon afterwards settling with his family in Oxford, where, save for occasional trips to the Continent, he expects to remain. Politically Littleton was a Democrat until 1896, since which time he has been a Republican.

***Francis A. Lowe**

Mining Engineer

Died 1883

Francis Asbury Lowe, '70 S., a native of Washington, D. C., died in San Luis Potosi, Mexico, on March 14, 1883, in his thirty-seventh year, of small-pox contracted while in the discharge of his duty as a mining engineer.

After graduation at Sheff he studied also at the Academy of Mines in Freiberg, Saxony, and in the practice of his profession visited most of the important mining regions of the United States and of Mexico. He was never married.

William D. Marks, C. E.

Engineer

Westport, Essex County, N. Y., and 720 Park Row Building,
New York City

William Dennis Marks, '70 S., was born in St. Louis, Mo., February 26, 1849. He is the son of Dennis Marks and Amira (Bacon) Marks, both deceased.

Marks prepared for Yale at General Russell's Military School in New Haven, Conn., and entered Sheff in 1867, where he took the Civil Engineering Course. Since graduation he has served as Class Secretary.

He was married at Chattanooga, Tenn., in 1874, to Miss Jeanette Holmes Colwell, who died in 1894,

at Westport, N. Y. He has two daughters: Jeanette Augusta Marks (born 1875, in Tennessee), and Mabel Marks (born 1876, in Philadelphia, Pa.).

Concerning his professional career the *Engineering World* recently said:

"William D. Marks, Ph. B., C. E., whose name has appeared frequently in our pages as a writer on important engineering statistical and economic subjects, is a consulting engineer and statistician, making a specialty of the construction and operation and of the finances of gas and electric light and power enterprises. Since January 4, 1906, he has been in the employ of the city of New York as an expert gas and electric light engineer and has, during all that time, been engaged under the direction of Corporation Counsel Delany and Assistant Corporation Counsel Burr in making investigations of the cost of construction and of operation of the gas and electric light companies supplying the city of New York.

In the year 1871 he entered the employ of the Delaware, Lackawanna & Western Railroad as assistant to the division engineer, and afterward became transit man on the Chicago & Northwestern Railway. In 1872 he was appointed resident engineer and accountant for the contractors building the Laclede gas works in St. Louis, Mo. He remained with the Laclede Gas Company until their works were completed and put in operation, and then took up the building of railway locomotives and machinery and of blast furnaces and their machinery as a contractor until in 1876, when he was appointed instructor in Mechanical Engineering at Lehigh University upon the recommendation of the faculty of Science at Yale. From 1876 until 1887 he held the chair of the Whitney Professorship of Dynamical Engineering at the University of Pennsylvania, giving instruction in engineering and in mathematical

study of force and motion, including electricity. In the year 1884 he interrupted his service as professor on leave of absence to become superintendent and organizer of the scientific work of the International Exhibition of the Franklin Institute at Philadelphia. In 1885 he was chairman of the executive committee of Franklin Institute, which instituted and completed its well-known standard series of experiments on steam and the steam engine and boilers and on electricity and dynamos and incandescent and arc light illumination. Though having general charge and arrangement of all of this work, he was specially in charge of the details of electrical measurement and of photometric tests. In 1887 he relinquished his position in the University of Pennsylvania to become engineer to the Philadelphia Edison Electric Company and designed and built for that company a 10,000-H. P. electric light station, it being at that time the largest individual station in the world. In 1892, having completed the engineering construction and put it in operation, he was made president of the Philadelphia Edison Electric Company and reorganized its business, earning and paying in actual dividends to the stockholders 53 per cent in four years. In 1896 the Edison Company of Philadelphia sold its property at a profit of \$1,000,000, that paying its stockholders 103 per cent (dividends included) on its investment of \$2,000,000. In 1889 the Edison General Company of New York City appointed Mr. Marks engineer and the then president, Mr. Henry Villard, assured him of their intention to shortly make him president, but after a few months he preferred returning to Philadelphia. Since 1896, he has given attention to the construction of electrical apparatus and practiced as an engineer, being connected with some fifteen or sixteen gas, electric light and electric railroad companies as manager, director or president, undertaking for them, as was required, either the actual construction of new works, the operation of going works

and the organization or reorganization of their finances and accounting departments. At all times, during his technical work as engineer, he has been interested in and given special attention to the accounting departments and the finances of the enterprise with which he was connected. Of late years, he has practiced as an engineer, built and operated gas works in Durham, N. C., and reorganized and operated gas works in Fostoria, Ohio. Since 1876 he has been regularly employed as expert engineer and accountant for gas works all over the United States, in which Mr. Arthur W. Benson, president of the Brooklyn Gas Light Company, and his associates, were interested, and has made many expert reports to them on their interests and works. Besides many scientific papers and books on engineering, Mr. Marks has written a work on the "Finances of Gas, Electric Light and Power Enterprises," which has reached a third edition, selling over 5,000 copies. He is an honorary life member of the Franklin Institute of Philadelphia for scientific service rendered, and was for some time chairman of its Committee on Science and the Arts; member of the American Philosophical Society; Fellow of the American Association for the Advancement of Science; member of the American Institute of Electrical Engineers; member of the American Gas Light Association, and also of other technical societies. He has been offered many elections to technical societies which he has declined for lack of leisure."

Arthur W. Rice

Secretary and Treasurer, Connecticut Loan & Realty Co.

Residence, New Britain, Conn.

Arthur Woods Rice, '70 S., was born in Meriden, Conn., March 9, 1849. He is the son of Oliver Rice and Mary Abby (Caldwell) Rice.

Oliver Rice (born November 17, 1820, at Meriden, Conn., died in 1886, at Meriden, Conn.) was a farmer.

Mary Abby (Caldwell) Rice was born May 23, 1823, at Ipswich, Mass., and died January 24, 1907, at Meriden, Conn.

Rice prepared for Yale at the Gunnery School, Washington, Conn., and at Williston Seminary, Easthampton, Mass., and entered Sheff in 1867, where he took the Civil Engineering Course.

He was married at New Britain on May 12, 1879, to Miss Mary Spencer Babcock of New Britain, Conn., a graduate of the New Britain High School. They have had one son: Arthur Spencer Rice (born August 19, 1880, died October 15, 1897).

Rice has been secretary and treasurer of the Connecticut Loan & Realty Company of Hartford, Conn., since July, 1905.

Evelyn P. Roberts

Engineer, President and General Manager, Mohegan Granite Quarrying Company

Pierrepont Manor, Shrub Oaks, Westchester County, N. Y.,
and 18 Broadway, New York City

Evelyn Pierrepont Roberts, '70 S., was born in Fort Leavenworth, Kan., December 25, 1848. He is the son of Benjamin Stone Roberts and Elizabeth Pierrepont (Sperry) Roberts, who were married in September, 1835, and had six other children: Benjamin Kearney

Roberts (a graduate of Norwich University, Vt., in the class of 1862, Brigadier General U. S. A. and Chief of Artillery, 1905); Harris Lee Roberts (a graduate of the United States Military Academy in the class of 1880, Major U. S. A., 1905); and four sons who died in early life.

Benjamin Stone Roberts (born November, 1810, at Manchester, Vt., died January 25, 1875, at Washington, D. C.) was a lieutenant, First Dragoons, United States Army, ordered to old Fort Demoins, Iowa, and was with the Army in Mexico, on frontier, and in Civil War. He graduated at West Point in June, 1835, and was promoted for "gallant conduct in face of enemy," five times during the Mexican War and three times during the Civil War; was brigadier general in 1862 and subsequently major general. He retired when on detail at Yale College as "Instructor of Military Science and the Art of War," in 1870. He was a grandson of one of the first settlers of Manchester, Vt. His great-grandfather Roberts was from Providence, R. I.

Elizabeth Pierrepont (Sperry) Roberts (born October, 1815, at Manchester, Bennington County, Vt., died March, 1898, at Fort Hamilton, New York Harbor) was a daughter of Anson Sperry and Laura (Pierrepont) Sperry of South Farms, Conn., a great-great-granddaughter of James Pierrepont, the first minister established in New Haven, who was one of the founders of Yale College.

Roberts prepared for Yale at the Hopkins Grammar School, in New Haven, Conn., and entered Sheff in June, 1867, where he took the Engineering Course.

He was married at New York City, on July 5, 1903, to Miss Helen Francis Caleb of Elkton, Md., a daughter of a manufacturer of steel, Chicago, Ill.,

and a Civil War veteran. They have one son: Benjamin Stone Roberts (born October 23, 1904, at Fort Washington, Md.).

Roberts was assistant engineer, Dansville & Mt. Morris Railroad, western New York, summer of 1870; assistant engineer, Northern Pacific Railroad, in Oregon, Washington Territory, etc., 1870-75; Spring Valley Water Works, San Francisco, 1875-80; Canadian Pacific Railroad (contracting engineer), in British Columbia, 1880-85; charge of exploration for dams and reservoirs, Aqueduct Commission, New York, 1885-93; building dams and reservoirs, Croton Watershed, 1893-96; practiced profession as civil and consulting engineer, New York City, 1896-1902. From 1902-06 developing Mohegan Granite Quarries, Westchester County; building, as subcontractor, sections 10, 12, and 15 (about six miles) of New York subway; erecting the Cathedral of St. John the Divine, New York City; and participating in the construction of sundry railways and their operations in various parts of the United States. Since about 1896, he has been president and general manager of the Mohegan Granite Quarrying Company.

Roberts is a Republican. He is a member of the Episcopal Church, a warden of the church, and a trustee of Jerry McAuley Cremorne Mission. He is a member of the Yale Club, St. Anthony Club, Calumet Club, Church Club, The Century Associa-

tion, Balsom Lake Club, Down Town Association, American Society Civil Engineers, Military Order Loyal Legion, Sons of the Revolution, The Geographical Society, and other clubs and societies.

His published works are: "A History of the New York Water Supply," *Engineering News*, October, 1892; sundry professional papers and articles published or read at various times.

George D. Roseberry

President and Manager, Pottsville Bolt Company

1227 West Market Street, Pottsville, Pa.

George Douglass Roseberry, '70 S., was born in Pottsville, Schuylkill County, Pa., January 11, 1849. He is the son of John Washington Roseberry and Elizabeth Sargent (Douglass) Roseberry, who were married in May, 1846, and had ten other children, five of whom died in early life. The living are: Mrs. Anne R. Hobart, Mrs. W. M. Hall, Frank Roseberry, Clement H. Roseberry, and Blanche D. Roseberry.

John Washington Roseberry (born July 20, 1817, at Orwigsburg, Schuylkill County, Pa., died March 31, 1893, at Pottsville, Pa.) was a lawyer residing first at Orwigsburg, Pa., and later at Pottsville, Pa. He was at different times a member of the Pennsylvania Legislature, president of a bank, and president of the County Bar Association. He was graduated at Orwigsburg Academy. He was descended from the first Scotch and Welsh settlers of southeastern Pennsylvania, who landed in Philadelphia from 1680 to 1720. Many of his ancestors fought in the colonial and continental armies.

Elizabeth Sargent (Douglass) Roseberry, born March 14, 1827, at Douglassville, Berks County, Pa., was born in the same town where her ancestors (Scotch) landed in the early part of the eighteenth century. Her ancestors served the country in the Indian and Revolutionary Wars.

Roseberry prepared for Yale at the public schools, Pottsville, Pa., and at General Russell's School in New Haven, Conn., and entered Yale in September, 1867, where he took the Mining Engineering Course. He was a member of Theta Xi.

He was married at Pottsville, Pa., on October 20, 1877, to Miss Marietta Mudey, of Montreal, Province of Quebec, Canada, who died January 26, 1904, at Pottsville, Pa., a graduate of Pottsville High School in the Class of 1877, and daughter of David Mudey (died in 1867), a railroad ticket agent. He has four children: Mary Margaret (born December 2, 1878, married George E. Runkle, November, 1905); Elizabeth Douglass (born June 25, 1881, married Saul MacKeeby, October, 1904); John Washington Roseberry (born July 8, 1884); and George Douglass Roseberry, Jr. (born September 19, 1886).

Roseberry has been engaged in the manufacturing business, running a bolt factory for the past thirty-five years. He is an independent voter and has never held public office. He is a member of Trinity Protestant Episcopal Church of Pottsville. He is

also a member of several social and athletic clubs, the Outdoor Club, and Y. M. C. A. of Pottsville.

Alfred Stanton

No information about the biography or present whereabouts of Alfred Stanton, '70 S., has been obtainable.

George F. Stone

Teacher, American School for Deaf, Hartford, Conn.

690 and 991 Asylum Avenue, Hartford, Conn.

George Frederick Stone, '70 S., was born May 29, 1847, at Hartford, Conn. He is a son of Collins Stone and Ellen Jane (Gill) Stone, who were married April 29, 1839, and had six other children: Edward Collins Stone, '62, M. A. '65 (died December 19, 1878, at Hartford, Conn.); Louise Stone Watkinson; Kate Stone Williams (died April 17, 1909, at Hartford, Conn.); Alice Stone (died June 11, 1859, at Columbus, Ohio); Jennie Stone (died August 3, 1862, at Columbus, Ohio); and Nellie Stone Gleason.

Collins Stone, '32, M. A. '35 (born September 7, 1812, at Guilford, Conn., died December 23, 1870), was the son of Timothy Stone, a farmer of Guilford, afterwards of Durham, Conn., and Eunice (Parmelee) Stone. He was a Congregational minister, was a deacon of the Center Congregational Church, Hartford, Conn., principal of the Ohio Institution for Deaf and Dumb for eleven years, and principal of the American Asylum

for Deaf and Dumb in Hartford, Conn., for the last seven years before his death.

Ellen Jane (Gill) Stone (born June 6, 1815, at Middletown, Conn., died December 21, 1879, at Hartford) was the daughter of Samuel Gill and Jane (Watkinson) Gill of England.

Stone prepared at the Hartford Public High School, Hartford, Conn., and entered Sheff in 1866, where he took the Mechanical Engineering Course. He was a member of Berzelius.

He was married on July 1, 1885, at Rochester, N. Y., to Miss Mary Horsford Tryon, daughter of James Seymour Tryon, who before his death was cashier of the First National Bank, Hartford, Conn. They have had four children: Tryon Stone (born July 10, 1887, died September 2, 1887); Janet Tryon Stone (born February 11, 1889); Rachel Norton Tryon Stone (born November 19, 1890); and Mary Tryon Stone (born July 1, 1892).

For two years after graduation Stone was mechanical draughtsman for Colts Patent Fire Arms Manufacturing Company, and from 1874 to 1877 was in the Bureau of Steam Engineering, Navy Department, Washington, D. C. Since 1880 he has been connected with the American School for the Deaf, Hartford, Conn., as teacher.

He is a member of the Asylum Hill Congregational Church, in which church he holds the position of

clerk. He is also a member of the Connecticut Historical Society.

Clarence A. Warren

Insurance, Agent Louisville Insurance Company
918 Second Street, Louisville, Ky.

Clarence Augustus Warren, '70 S., was born in Louisville, Ky., December 22, 1846. He is the son of Levi Legg Warren and Mary Ann (Wood) Warren, who were married January 5, 1835, and had seven other children: William Bates Warren, Henry Clay Warren, Eugene Clinton Warren, Rev. Edward LeRoy Warren, Ella Maria Warren, Cary Ives Warren, and Minnie Wood Warren.

Levi Legg Warren (born August 2, 1808, in Massachusetts, died March 19, 1884, at Louisville, Ky.) was a merchant with L. L. Warren & Co., and resided at Fourth and Walnut Streets, Louisville. He was treasurer of Centre College, Danville, Ky., and of Danville Presbyterian Theological Seminary; president Falls City Bank; trustee and chairman of Finance Committee of Board of Trustees of Public Schools in Louisville; prominent in founding the Normal School for Girls and also Public School for colored children in Louisville; treasurer for fund raised in United States and elsewhere for the relief of people in the South after the Civil War. He was a grandson of Silas Warren, who fought in the Revolution, and a descendant of John Warren (born in 1585 in England), who came to Watertown, Mass., in 1630.

Mary Ann (Wood) Warren (born December 19, 1814, in Massachusetts, died April 4, 1900, at Louisville, Ky) was a daughter of Asa Wood and Polly Stoddard, and granddaughter of Ezekiel Stoddard who fought in the Revolution.

Warren attended several schools in Louisville, Ky.; also attended the Presbyterian College for Boys; graduated from the Louisville Male High School in 1868, and entered Sheff in the fall of 1867, where he took the Civil Engineering Course.

He was married at Louisville, Ky., on November 20, 1873, to Miss Cora Olive Sutcliffe, a graduate of Mrs. Platt's Private School, and daughter of John Edward Sutcliffe, a graduate of the University of Medicine, New York City, a physician, druggist, wholesale boot and shoe dealer, and banker of Louisville, Ky. They have four children: John Sutcliffe Warren (born October 3, 1874, married Cora Mildred McGregor, February 10, 1903); Francis Wood Warren (born January 14, 1878); Levi Legg Warren (born October 12, 1879); and Fannie Sutcliffe Warren (born August 19, 1895).

Warren has been engaged in mercantile business. He was in the wholesale boot and shoe business and traveled for about fifteen years in the states of Indiana, Kentucky, Tennessee, Alabama, part of Georgia, and a large part of Mississippi, making trips East twice a year to visit factories and buy goods. He has been interested financially in a number of projects and in real estate. Since November, 1898, he has been looking after the city business of the Louisville Insurance Company, in which company he has been a stockholder for a long time. He has continually devoted much time to study and reading.

Warren is a member of the Masonic Order, Masonic Club, Sons of the American Revolution, Order of Eastern Star. He is past master of Falls City Lodge, No. 376, F. & A. M., and Past Commander of Louisville Commandery, No. 1, Knights Templar. He is a Democrat, but has refused to enter politics.

John G. Watson

Postmaster of Ayr, Ontario, Canada
Ayr, Ontario, Canada

John George Watson, '70 S., was born at Galt, Province of Ontario, Canada, August 21, 1847. He is the son of John Watson and Mary (Urie) Watson, who were married August 18, 1845.

John Watson (born June 12, 1820, at Glasgow, Scotland, died December 14, 1903, at Ayr, Ontario), was a moulder living at Hamilton, and was warden of the County of Waterloo and reeve of the village of Ayr.

Mary (Urie) Watson died April 25, 1851, at Ayr, Ontario, Canada.

Watson attended Oberlin College for a time, and for a year before entering Yale went to a preparatory school in New Haven. He entered Sheff in 1867, where he took the Mechanical Engineering Course.

He was married at Ayr, Ontario, on May 9, 1871, to Miss Margaret Boyd Hall of Ayr (born January 29, 1851), a daughter of William Hall, a farmer.

They have had one son and one daughter: John William Watson (born May 17, 1872, at Ayr), and Daisy Ellen Watson (born October 7, 1877, at Ayr, died February 18, 1901, at Ayr).

He was connected with the John Watson Manufacturing Company of Ayr, making agricultural implements of all kinds, from his graduation until 1903, when he became postmaster of the village of Ayr. In politics he is a reformer; he is a member of the Presbyterian Church. He belongs to the Masonic order and I. O. O. F.

BIOGRAPHIES

1871 S

Horace Andrews, C. E.

Civil Engineer

125 Lancaster Street, Albany, N. Y.

Horace Andrews, '71 S., was born in New Haven, Conn., March 19, 1852. He is the son of Horace Andrews and Julia Russell (Johnson) Andrews, who were married June 1, 1847, and had two other children: William Henry Andrews (graduate of the Columbia Law School in the class of 1869, who resides at Portland, Conn.); and Prof. Ethan Allen Andrews, '81 S., Johns Hopkins University '87, of Baltimore, Md.

Horace Andrews, Sr. (born April 27, 1819, at New Britain, Conn., died February 13, 1901, at Brooklyn, N. Y.), was a lawyer residing at New York City and Tarrytown, N. Y. He graduated from Yale in the Class of 1841, and attended the Yale Law School, 1843-45. He was the third son and fifth of the ten children of Prof. Ethan Allen Andrews, Yale 1810, a descendant of John Andrews, one of the settlers and, in 1672, one of the eighty-four proprietors of the ancient town of Tunxis, named afterwards Farmington, Conn., and Lucy (Cowles) Andrews, a daughter of Col. Isaac Cowles of Farmington, and a descendant of Rev. Thomas Hooker, who settled at Newtown (now Cambridge) Mass., in 1633.

Julia Russell (Johnson) Andrews (born July 24, 1826, died November 28, 1866, at New Haven, Conn.) was a daughter of William Johnson, the son of Thomas

J. and Hannah (Davis) Johnson and Mary Elizabeth Welles, daughter of Noah Welles, M. D., and Euphemia (Hoog) Welles, and granddaughter of Rev. Noah Welles.

Andrews prepared for Yale at the Hopkins Grammar School and the Stiles French Private School, both in New Haven, Conn., and entered Sheff in the fall of 1868, taking the Civil Engineering Course; receiving the degree of Ph. B. in 1871, and C. E. in 1872.

He was married first at Hamden, Conn., on October 13, 1881, to Miss Adeline Louise Downer (died December 8, 1893, at Albany, N. Y.), daughter of Samuel R. Downer (born January 8, 1827, died February 4, 1891) and Charlotte Root Forbes (born February 1, 1829, died September 7, 1893) of Hamden, Conn. He has had three children: Theodore Andrews, '03 (born November 29, 1882, at Albany, N. Y.); Bertha Agnes (born August 30, 1884, married James E. Maloney, M. D., September 25, 1903); and Alan Andrews (born February 21, 1887, died January 6, 1893, at Albany, N. Y.).

He was married, second, to Miss Frances Eleanor Green, daughter of W. W. Green of Hull, England, on June 15, 1910, at Hull.

Andrews was engaged on the United States Coast Survey, 1872-78, being on Navy pay rolls the last year in Florida; on New York State Trigonometrical Survey, 1878-84; engineering inspector of New

York State Board of Health, 1884-86. He designed and superintended sewer construction in Binghamton, N. Y., and in Bath (on Hudson), N. Y.; designed and supervised sewers of Plattsburg, N. Y.

In politics he is a Democrat, but has held no elective office. He was city engineer of Albany, 1886-1900, seven terms of two years each, appointed by the mayor and confirmed by the Common Council; was a member of the Albany Board of Health six years; member of Board of State Examiners for Engineering Positions six years; president of Board of Plumbing Examiners for Albany five years. He is a member of St. Peter's Protestant Episcopal Church of Albany. He is a member of the American Society of Civil Engineers and of its Board of Direction, 1908-10; a member of the American Society Municipal Improvements, Deutschen Geometerverein, and Fort Orange Club of Albany. He traveled in England, France, Belgium and Holland in 1904; in Jamaica in 1904; in Jamaica, Columbia and Costa Rica in 1905; in Mexico in 1907; in England and the Continent, including Italy, Switzerland and Germany, in 1909; and in England, France and Germany in 1910.

His published works are: two papers in "Final Report of New York State Survey, 1887," also one in an earlier report; several reports to New York State Board of Health, 1884-85; annual reports as city engineer of Albany, 1891-1900 (no reports were

ever made prior to 1891); chapter on "City Surveys" in Gillespie's "Surveying" (Staley), D. Appleton & Co., 1897; several papers discussed in American Society Civil Engineers; numerous contributions to *Engineering News* of New York, and several papers and reports in "Transactions American Society Municipal Improvements."

Edwin F. Bacon

Teacher, Oneonta, N. Y., State Normal School
Oneonta, N. Y.

Edwin Faxon Bacon, '71 S., was born in Lockport, N. Y., June 2, 1832. He is the son of James Bacon and Mary (Wright) Bacon, who were married April 28, 1819, and had seven other children: Mary Jane (married Rev. M. L. Fuller, died in 1904, at Fenton, Mich.); Cornelia (married Rev. D. T. Olcott, died July 21, 1864, at Lockport, N. Y.); James Bacon (died in 1869, at Kansas City); Rev. Albert M. Bacon (a graduate of Shurtleff College, Ill., died in Chicago, Ill., October 31, 1898); Caroline A. (married Rev. Dr. Joseph Cross); George W. Bacon, a publisher of London, England (F. R. G. S); and a daughter who died in infancy.

James Bacon (born September 11, 1791, at Sandy Hill, N. Y., died January 21, 1855, at Mount Pleasant, Wis.) was a business man of Lockport, N. Y., from 1820 to 1847, after the latter date in Wisconsin. He was constable and deputy sheriff at Lockport and postmaster at Mount Pleasant, Wis. He was a deacon in the Baptist Church. In early life he was a teacher at Silver Creek, N. Y. He was a son of Joseph Bacon, a farmer of old New England stock, and Mary Gillett of Sharon, Conn.

Mary (Wright) Bacon (born February 13, 1794, at Berlin (now New Britain), Conn., died July 29, 1864, at Normal, Ill.) was a daughter of Reuben Wright, a soldier of the Revolution, and Martha Gridley of Kensington parish in Berlin, Conn., and granddaughter of Judah Wright.

Bacon engaged in various business employments in the West and South before entering college. He taught at Bloomington, Ill., Norwalk, Conn., and Wilmington, Del. He prepared for college at the Illinois Normal University at Normal, Ill., and at the Peoria High School, and entered Sheff in September, 1868, where he took the Select Course. While in college, 1870-71, he taught in the Hopkins Grammar School in New Haven.

He is unmarried.

Since graduation in 1871, Bacon has been engaged in teaching, study, travel, and writing. He has visited Europe four times, in 1873-75, in 1882-85, in 1897, and in 1900, spending in all about five and a half years abroad. While in Paris he taught and lectured in English at the "Institut Polyglotte." As a teacher, he has devoted himself chiefly to French and German. He taught in Hasbrouck Institute, Jersey City, from 1877 to 1889 (excepting the three years' absence abroad), and has been teacher of French and German at Oneonta since the opening of the school in 1889, recently also of Spanish.

His published works are: "Leitfaden zum Erlern-

nen der deutschen Sprache," a German text book, Maynard, Merrill & Co., 1885; "New French Course," a French text book, American Book Company, 1897; "New German Course," Maynard, Merrill & Co., 1906; "The Passion Play at Oberammergau as seen in 1900," in German and English, with description of fifty scenes, used with illustrated lecture; a lecture on "Success," delivered in Paris and published in London; and "History of Otsego County, N. Y., 1902." Under the pen name of "Luke Sharpe," he is a constant contributor to various country papers, on subjects of health and culture, and is an occasional lecturer on these and kindred topics.

[As this volume is going to press word is received that Professor Bacon died in Oneonta, N. Y., on Saturday, December 17.]

Luther W. Burt

Civil Engineer and Surveyor

124 Collins Street, and 39 Pearl Street, Hartford, Conn.

Luther White Burt, '71 S., was born in Hartford, Conn., October 16, 1848. He is the son of Richard Storrs Burt and Maria Asenath (Boardman) Burt, who were married April 3, 1844, and had two other children: Charles Richard Burt (secretary of the Connecticut Fire Insurance Company of Hartford, Conn., for thirty-five years, died November 20, 1907); and Lilla M. Burt of Hartford.

Richard Storrs Burt (born October 26, 1817, at East Longmeadow, Mass., died April 21, 1895) was an insurance agent with the Connecticut Fire Insurance Company and resided at Hartford, Conn. He was a son of Luther Burt, a farmer of East Longmeadow, and Mary (White) Burt (born in Springfield, Mass), and a descendant of Henry Burt, who came from England about 1630, and was the ancestor of all Burts originating in Springfield, Mass.

Maria Asenath (Boardman) Burt (born September 25, 1817, at Hartford, Conn., died June 26, 1892, at Hartford, Conn.) was a daughter of Lewis Catlin Boardman and Sophronia (Woodruff) Boardman of Hartford.

Burt prepared for Yale at the Stiles French School in New Haven, Conn., and entered Sheff in 1868, where he took the Engineering Course.

He was married at Springfield, Mass., on May 6, 1875, to Miss Mary Alice Greene (died March 21, 1887), daughter of Albert Pownell Greene, a farmer of Middletown, Conn. He was married again on January 23, 1895, to Miss Mary Rose Francis, daughter of Samuel H. Francis, a farmer of West Hartford, Conn. His children are: Luther Harold Burt (born February 29, 1876, a graduate of Trinity College in the Class of 1900, now a practicing civil engineer in State of New York, married Miss Claudia LeSeur of Schuylerville, N. Y., April, 1902. They have one child: Richard White Burt, born December 20, 1903); Alice Morgan Burt (born October 27, 1877); Marian Lucy (born July 12,

1883, married Dr. F. Herbert Gile, of Braintree, Mass., October 5, 1909); Richard Greene Burt (died in childhood); Daisy Helen Burt (died in infancy); Arline Francis Burt (born December 8, 1895); and Charles Everett Burt (born October 29, 1906).

Burt was city engineer and surveyor of Hartford, 1891-94, since which time he has been a consulting engineer and surveyor with an office in Hartford. In politics he is a Democrat. He is a member of the Asylum Hill Church.

At the time of his candidacy for city surveyor of Hartford, the *Hartford Times* (April 13, 1891) printed the following editorial comment on his work:

"Mr. Luther W. Burt, the Democratic nominee for city surveyor, . . . spent a year or two under General Ellis on the Government survey of the Connecticut River, and then, for a half dozen years, rendered excellent service as assistant city surveyor at the period when much extra work was being carried on in Hartford, including the layout of Franklin Avenue, the trunk sewer in that avenue and the building of sewers in High and other streets. The present valuable map of the city was in the main prepared by Mr. Burt from his own special surveys.

"The engineering work of the Connecticut Western railroad, under the superintendency of Major J. F. Jones, was entrusted to Mr. Burt, and the excellent character of his work is attested by the fact of his engagement by Major Jones, within the past twelve months, for a half year and more in laying out and developing the town of Blacksburg, S. C., and in engineering work on the "Three C's" railroad, with which enterprises Major Jones has been the moving spirit. Mr. Burt has planned and built a railroad for the Middlesex Quarry Company;

has built sewers in Hartford, Norwalk, Danbury, New Haven, etc., including the Boulevard trunk sewer in the latter city, and has done a vast deal of other work in Connecticut in the dozen years he has had an office as independent surveyor and civil engineer in this city. He will come to the position of city surveyor with an experience well qualifying him for the duties of the office."

*James C. Bush

Soldier and Editor

Died 1905

James Clark Bush, '71 S., only son and eldest child of William Henry and Eliza Ann (Clark) Bush of New Haven, Conn., was born in Waterbury, Conn., October 31, 1850. His father was for many years deacon in the First Congregational Church in Waterbury. His mother was a daughter of John Clark (Yale 1806) of that city. He had five ancestors who served in the Revolutionary War, one great-grandfather having gone through the entire war and received a pension.

The boyhood days of Bush were spent in Waterbury and New London, Conn., in Scranton, Pa., and in New Haven, Conn. In the last city he received most of his early education, at Mr. Fabrique's School and at General Russell's Commercial and Collegiate Institute. Owing to the financial reverses of his father, he left the Sheffield Scientific School during Junior year, but subsequently received the degree of

Bachelor of Philosophy, and was enrolled with his Class in 1890. For a time he was assistant to the city surveyor, and later for about a year served on the engineer staff of the Air Line Railroad, then in process of construction. Upon competitive examination he was then appointed from Connecticut to the United States Military Academy at West Point, entering as a cadet July 1, 1871; and was graduated June 16, 1875, when he was commissioned second lieutenant in the Fifth Regiment of Artillery. He was also graduated from the United States School of Application for Artillery Officers at Fort Monroe, Va., in 1880, and from the United States School of Application for Torpedo Training at Willet's Point, N. Y., in 1882. His appointment as first lieutenant in the Fifth Artillery bears the date of November 1, 1882, and he received his commission as captain in the Seventh Regiment of Artillery March 8, 1898.

During his connection with the United States Army he was at West Point until 1875; at Fort Trumbull, New London, Conn., in 1875; Key West Barracks and Fort Brooke, Tampa, Fla., until 1877; Fort Monroe, Va., in 1880; Fort Brooke again, 1880-81; Plattsburg Barracks, N. Y., 1881; and Willet's Point, N. Y., 1882. He was stationed at Fort Schuyler, N. Y., in 1882-83; was professor of military science at General Russell's School, New Haven, Conn., 1883-84; was at Fort Omaha, Neb., in 1884; Fort Douglas, Salt Lake City, Utah, during 1884-

87; at Fort Columbus, Governor's Island, New York Harbor, during 1887-98. During the Spanish War he was in service at Tampa, Fla., and in the autumn of 1898 was stationed at Fort Adams, Newport, R. I., where he remained until ordered to the Philippines in 1901. He reached Manila in the spring of 1902, and was first stationed at Fort Santiago, but later was transferred to a post about four miles away. He was commissioned major in the Artillery Corps, U. S. A., February 21, 1903; and early in 1904 he was placed in command of the Cuartel de Espana and of the Artillery, District of Manila. His health becoming somewhat impaired, he was granted leave of absence for several months, which he spent in travel in Japan. Shortly after his return to Manila he suffered an attack of fever from which he never fully recovered. He was ordered home in June, 1904, and reached this country in July, proceeding at once to Fort Warren, Boston Harbor, Mass., where he was in command until his last illness.

While at Governor's Island, he was post commissary. In 1888, he was elected assistant secretary and treasurer of the Military Service Institution; also assistant editor of the *Journal* of the Institution, having charge of the reprints and foreign reviews, a department which he inaugurated. It was likewise through his efforts that a change from a quarterly to a bimonthly issue was effected. The magazine

thus became better known and so valuable to officers as to increase the membership in the Institution and largely augment its funds, which he wisely invested. In 1894 he became sole editor of the *Journal*, his services for it ending when he took command of his company during the Spanish-American War, in June, 1898. He wrote various articles for this *Journal*, besides numerous translations from the French.

His more important writings are: "Development of Submarine Mines and Torpedoes," 1890; "Strategy, Tactics, and Policy," 1891; "Comment on the Three Battalion Organization," 1893; "A Short History of the Fifth Regiment of Artillery," 1895; "Historical Sketch concerning the Walls of Manila," 1904, which was published in the annual report of the commanding general of the Philippines Division.

His health was seriously undermined during his Philippine tour, and after his return to this country he suffered much from illness. Although urged to seek needed rest, he kept bravely on at his command at Fort Warren, where he was stricken with apoplexy May 17, 1905, a second attack proving fatal on June 11. He was fifty-four years of age. He was buried with military honors at West Point. He was a member of the Church of the Ascension, Boston.

Major Bush married, January 8, 1880, Eleanor Adams, elder daughter of Hon. Edwin M. Stanton, LL. D., Yale '67, attorney general in the Cabinet of President Buchanan, secretary of war in the

Cabinets of Presidents Lincoln and Johnson, and justice of the Supreme Court of the United States. He made his only European trip shortly after his marriage. Mrs. Bush and one daughter survive him. He also left three sisters residing in New Haven, Conn., one of whom received the degree of Doctor of Philosophy from Yale University in 1901.

George B. Chittenden, C. E.

Mining Engineer, Saddle Mountain Mining Company
Christmas, Ariz.

George Benjamin Chittenden, '71 S., was born in Madison, Conn., December 25, 1849. He is the son of Samuel C. Chittenden and Amanda Anne (Munger) Chittenden, and a brother of Samuel Hosmer Chittenden, '67 S., and C. E. '75 (died at Washington, Conn., February 14, 1909).

Samuel C. Chittenden (born September 22, 1811, at Madison, Conn., died December 3, 1886, at Madison, Conn.) was a son of Samuel Chittenden, direct descendant of William Chittenden, one of the founders of Guilford, Conn. He carried on a lumber business for many years and was one of the original projectors and stockholders of the Shore Line Railroad.

Amanda Anne (Munger) Chittenden (born November 27, 1813, at Madison, Conn., died January 12, 1901, at Madison, Conn.) was a daughter of George Munger, descendant of Nicholas Munger, one of the founders of Guilford, Conn.

Chittenden prepared for Yale at the Guilford Institute, Guilford, Conn., and entered Sheff in Sep-

tember, 1867, where he took the Engineering Course, receiving the degree Ph. B. in 1871, and the degree of C. E. in 1873.

He was married at Washington, D. C., on December 25, 1876, to Miss Ella Spencer Delano, daughter of James S. Delano (a graduate of Knox College, Ill., in the Class of 1853, in the department second comptroller, United States Treasury, at Washington, D. C.). They have three children: Mira D. Chittenden (born in 1879, at Washington, D. C.); Horace W. Chittenden, '03 S. and '04 F. (born in 1880); and Marjorie Lee Chittenden (born in 1884).

Chittenden entered the Coast Survey on graduation; was with the Geological Survey from 1873 to 1878; built water works dam, Washington, D. C., 1883-85; and has been mining in the South and Far West most of the time from latter date. Since 1901, he has been general manager for the Saddle Mountain Mining Company, Christmas, Gila County, Ariz. He is a member of the Congregational Church.

*Russell W. Davenport, M. A.

Manufacturer

Died 1904

Russell Wheeler Davenport, '71 S., son of Rev. James Radcliffe Davenport, D. D., Yale 1830, and

Mehitable W. (Newell) Davenport, and grandson of John Alfred Davenport, Yale 1802, was born in Albany, N. Y., on November 26, 1849.

The year after graduation Davenport was instructor in Chemistry in the Sheffield Scientific School, and then went to Germany, where he made a special study of metallurgy and blast metal processes in Berlin. In 1874 he entered the service of the Midvale Steel Works at Nicetown, in the suburbs of Philadelphia, as chemist, and in 1882 became superintendent. In 1888 he was appointed assistant superintendent, in 1893 vice-president, and in 1898 superintendent of manufacture of the Bethlehem (Pa.) Iron Works, where he successfully introduced the "open hearth" process for the manufacture of steel armor. In 1899 he was made general superintendent of the Bethlehem Steel Works, and in October, 1903, became general manager and director of William Cramp & Son's Ship and Engine Building Company in Philadelphia. For his acquirements as a metallurgist, and his services to the public in the work of building up the U. S. Navy and in gun work for the Army, he received the honorary degree of Master of Arts from Harvard University in 1894, and the same degree from Yale in 1898.

He lectured at Lehigh University in 1896 on ship armor making, contributed to the *American Journal of Science*, and wrote valuable pamphlets on iron and steel manufacture. He died of pneumonia at his

home in Philadelphia, on March 2, 1904, at the age of fifty-four years.

He had married, on June 1, 1897, Cornelia Whipple, daughter of Charles and Elizabeth (Whipple) Farnum, and granddaughter of Bishop Whipple. Mrs. Davenport survived him with a son. An elder brother (Yale 1861) died in 1890.

Frederick S. Dickson

Maneskootuk, Rangeley, Me.

Frederick Stoever Dickson, '71 S., was born in Utica, N. Y., June 24, 1850. He is the son of Hugh Sheridan Dickson and Sarah Margaret (Stoever) Dickson, who were married September 2, 1845, and had three other children: Alan Hamilton Dickson, ex-'72, Mrs. Elizabeth Dickson Lowrie, and Mrs. Ellen Dickson Wilson.

Hugh Sheridan Dickson (born May 22, 1813, at Rathfreiland, County Down, Ireland, died October 17, 1887, at Philadelphia, Pa.) was a clergyman residing at Philadelphia, Pa. He graduated at Union College in 1839 and at Princeton Theological Seminary in 1841, and received the honorary degree of D. D. from Hamilton College in 1841. He was a son of Alexander Dickson, fifth in descent from Davis Dickson, minister of Irvine, Scotland.

Sarah Margaret (Stoever) Dickson (born January 25, 1824, at Philadelphia, Pa., died January 29, 1898, at Philadelphia, Pa.) was a daughter of Frederick Stoever and Sarah (Reigart) Stoever, third in descent from Rev. John Caspar Stoever, who established the first Lutheran Church in Pennsylvania.

Dickson prepared for Yale at the Hill School, Pottstown, Pa., and entered Sheff in 1868, where he took the Select Course.

He was married at Conshohocken, Pa., on February 17, 1874, to Miss Helen Hortense Hickman of West Chester, Pa., daughter of John Hickman (lawyer, district attorney, member of Congress, 1854-62, died March 23, 1875) and Eunice (Phelps) Hickman, who were married December 1, 1839. He has two children: Elizabeth Dickson (born November 14, 1874, a graduate of Miss Porter's School, Farmington, Conn., married Maximilian Foster, June 25, 1904), and Frederick Stoever Dickson, Jr. (born October 9, 1881, Yale '03 S.).

Dickson is officially connected with the telephone business in Ohio, having been elected in 1902, president of the following companies: Cuyahoga Telephone Company, Federal Telephone Company, United States Telephone Company, Stark County Telephone Company, Youngstown Telephone Company, Zanesville Telephone Company, Lancaster Telephone Company, Massillon Telephone Company, Columbiana Telephone Company, Citizens Telephone Company, Fostoria and Findlay Telephone Company. On March 1, 1906, he joined the banking and brokerage firm of A. O. Brown & Co. of 30 Broad Street, New York City. In politics he is a Republican. He is a member of the St. Anthony Club, New York, and the Union Club, Tavern Club and Rowfant

Club, all of Cleveland, and a member of "The Titmarsh Club," London, England. He was president of the Associated Western Yale Clubs for the year 1907-08.

His published works are: "An Analysis of Blackstone's Commentaries," Philadelphia, 1874; "An Analysis of Kent's Commentaries," Philadelphia, 1876; "And The Wilderness Blossomed," Philadelphia, 1901; "Our Annual Execution by W. M. Thackeray" (edited), Philadelphia, 1902; "A Bibliography of Thackeray in the United States," New York, 190 ; "Telephone Investments and Others," Cleveland, 1905. . Edited *Keightley*, Henry Fielding, Cleveland; *The Rowfant Club*, 1908. Wrote an article on Wall Street gambling, "The Poison of the Street," for *Everybody's Magazine*, February, 1909.

William C. Durand

Banking, Secretary and Treasurer, Milford Savings Bank
Milford, Conn.

William Cecil Durand, '71 S., was born in Milford, Conn., June 15, 1851. He is the son of Calvin Durand and Sarah Cecil (Hunter) Durand, who were married April 27, 1847, in Savannah, Ga., and had one other child, a daughter, who died in infancy.

Calvin Durand (born February 2, 1802, at Milford, Conn., died March 1, 1884, at Milford, Conn.) was a merchant, residing at Milford, Conn., and New York City. He was for fifty-six years a New York merchant,

a member of the firm of Goodhue & Co., 64 South Street, New York City. He was a son of William Durand and Mary (Baldwin) Durand.

Sarah Cecil (Hunter) Durand (born February 5, 1823, at Savannah, Ga., died June 27, 1851, at Milford, Conn.) was a daughter of Col. James Hunter and Eliza Tuting (Cecil) Hunter.

Durand attended for three years Charlier's French School, at 48 and 50 East Twenty-fourth Street, New York City. Before entering college he had made three trips abroad. He prepared at the Stiles French School, at New Haven, Conn., and entered Sheff in September, 1868, where he took the Select Course.

He was married at Milford, Conn., on January 15, 1885, to Miss Lizzie C. Ford (died August 18, 1888, at Milford). He was married again on June 17, 1890, to Miss Clara Baldwin Clark (died March 9, 1904, at Milford, Conn.), daughter of Robert W. and Mary A. Clark. He was married a third time to Miss Anna M. Keefe, August 1, 1908, at Milford, Conn. He has no children.

Durand was a member of the Connecticut Legislature during the sessions of 1883-84, and 1889. He was a state auditor of public accounts, 1889-91. In politics, he is a Cleveland Democrat; never voted for Bryan—but voted for William H. Taft, because he was a Yale man. He is president of the Milford Club, and treasurer of the Milford Yacht Club. He

has been secretary and treasurer of the Milford Savings Bank since February 12, 1891, and treasurer of the Taylor Library since 1894.

Charles H. Dwinelle

Poultry Raising and Insurance.

Fulton, Sonoma County, Cal.

Charles Hascall Dwinelle, '71 S., was born at Rochester, Monroe County, N. Y., March 28, 1847. He is a son of John (originally Jeremiah) Whipple Dwinelle and Cornelia Bradley (Stearns) Dwinelle, who were married about August 11, 1841, and had four other children, one of whom is living: Ella Cornelia (born October 8, 1842, married Charles G. Pond of Brooklyn, N. Y., deceased); Anna Louise Dwinelle (born September 6, 1844, died September 21, 1882, at Berkeley, Cal.); Herman Dwinelle (born December 6, 1856, died November 10, 1877, at Berkeley, Cal.); and Florence Dwinelle (born February 25, 1858, died March 5, 1885, at Berkeley, Cal.).

John Whipple Dwinelle (born September 9, 1816, at Cazenovia, Madison County, N. Y., drowned in a ferry ship at Port Costa, Cal., January 28, 1881, at the age of sixty-four years) was the eldest child of Justin Dwinelle and Louisa (Whipple) Dwinelle. He had four brothers: Wm. H. Dwinelle, M. D. and dentist, New York; Justin Dwinelle, brigade surgeon, U. S. Volunteers, Syracuse, N. Y.; Samuel H. Dwinelle, judge of 15th District Court, San Francisco, Cal.; and James E. Dwinelle, M. D., Baltimore, Md.; and two sisters who lived to maturity, and two brothers who died in infancy. Justin Dwinelle, the father, was a farmer's son, born in

Shaftsbury, Vt., in 1785, died in Cazenovia, N. Y., September 17, 1850. He studied at Williams College, but graduated at Yale in 1808; was a lawyer, first judge of Madison County, N. Y., member of the New York Assembly and of the United States House of Representatives; was of Huguenot ancestry. John Whipple Dwinelle, LL.D., who graduated at Hamilton College about 1833, was a lawyer connected with the firm of Shafers, Gould & Dwinelle, San Francisco, Cal. He resided at Cazenovia and Rochester, N. Y., and at San Francisco, Oakland, Berkeley and Alameda, Cal. He was a member of the Assembly of California, mayor of Oakland, Cal., and a member of the Board of Regents of the University of California. He drew the bill which was the organic act of the University of California, and pushed it through the Legislature. He married for a second wife the widow of Mr. W. W. Chipman of Alameda, Cal., and she survives him.

Cornelia Bradley (Stearns) Dwinelle (born at Pompey, Onondaga County, N. Y., April 18, 1819, died at San Rafael, Cal., October 25, 1873) was the daughter of Dr. Jehiel Stearns and Nancy (Hascall) Stearns, and was educated at Pompey Academy, Cazenovia Seminary, and Mrs. Record's School, Geneva, N. Y. A brother, Joseph Hascall Stearns, was one of the founders of the business known as the Selby Smelting & Refining Company of San Francisco, Cal. He died in 1883, at the age of sixty-six years. He was unmarried. Jehiel Stearns was a farmer's son, born at Rockingham, Vt., in 1790, studied in Dr. Hastings' office at Charlestown, N. H., attended medical lectures at Dartmouth College, was licensed to practice, and was assistant surgeon in the United States Army in the War of 1812 to 1815. He practiced in Pompey, N. Y., for over sixty years. He was very skillful, and greatly beloved by his fellow men. He received the degree of M. D. from Geneva Medical College, "for merit." The Onondaga Medical Society be-

stowed upon him the old Roman crown of laurel and oak for distinguished service in civil life. He chose his profession as one that would give him opportunities to do good to his fellows. He died October 8, 1878, at the age of eighty-eight years, eight months and eight days. Nancy, his wife, was one of the twelve children of Deacon Joseph Hascall and Alice (Fitch) Hascall, and was probably born at Pawlet, but possibly at Bennington, or Rutland, Vt. She was a woman of very lovely character, and deeply mourned by the community when she died, at something like sixty years of age. Joseph Hascall was a soldier in the Continental Army, afterwards a farmer. He lived to be over eighty years old. Alice Fitch, his wife, was a daughter of Rev. James Fitch, of Killingly, Conn., a noted preacher. She was of small stature but of high intelligence and great energy. She died at Pompey, N. Y., at the age of ninety-three or ninety-five years, and retained her faculties to the last. The Hascalls were Baptists, and one of their sons, a clergyman, maintained a boarding school at Hamilton, N. Y., out of which grew the institution now called Colgate University. He also inaugurated a Baptist Theological Seminary, which afterwards moved to Rochester, N. Y., and Rochester University was an offshoot from it.

Dwinelle, born at Rochester, N. Y., went to Pompey, N. Y., at the age of two years, returned to Rochester at the age of six years, and when sixteen went to Oakland, Cal. Not being strong, he had attended school but little up to that age, but had been tutored at home, particularly in French and mathematics, the latter taught by professors from Rochester University. He entered Oakland College School in 1864, at the age of seventeen, and remained

there two years. He then spent one year in McClure's Academy, and the next year received private instruction in mathematics from Watson A. Goodyear, Yale '63 S., entering Yale in 1868, at the age of twenty-one years. He took a course preparatory to agriculture at Sheff, where he was a member of Berzelius, took the prize for proficiency in French, and had honorable mention in botany and zoölogy at graduation. He spent the summer vacation of 1869 at Cream Hill, West Cornwall, Conn., farming under the instruction of the Hon. T. S. Gold. The summer of 1870 was spent in Eastport, Me., with Professor Verrill, collecting marine animals.

He was married June 10, 1885, at Woolsey Ranch, Meacham Station, Cal., to Miss Marie Louise Woolsey (born in Brooklyn, N. Y.), daughter of Ezra Woodhull Woolsey (born March 1, 1824, at Huntington, L. I., N. Y., died October 16, 1910), formerly a merchant in New York, general agent for a Life Insurance Company in San Francisco, and farmer at Fulton, Cal. They have no children.

In 1871 Dwinelle returned to Oakland, Cal., and worked for the Pacific Rural Press while hunting an agricultural opening. In 1872-73 he rented the land where Berkeley now is, and raised hay. He invested in the so-called "Tule lands," marsh lands in the delta of the Sacramento and San Joaquin rivers, making money for a time and then losing all by a flood and a mortgage. In 1874 he tried vegetable farming on

these lands, was flooded out and contracted a fever that impaired his hearing. This deafness has increased with years. In 1875-76 he raised sheep in Contra Costa County, Cal. The winter of 1876-77 was passed in San Diego County on a ranch. In 1877-78 he was engaged in the real estate business in San Francisco, and from 1878 to 1885 he was a lecturer on practical agriculture in the College of Agriculture, University of California, Berkeley, Cal. He also introduced the study of systematic and economic entomology at this college. When he left in June, 1885, he expected to return in a year, but that summer he received such an injury to his right eye that he never went back to teaching. In 1885 he traveled with his wife in California, by steamer to Oregon, by rail to Yellowstone Park, and east to New York. At Washington, D. C., he attended the Convention of Representatives of Agricultural Colleges and Experiment Stations, as delegate from the University of California. They then went to the British Isles, France, Switzerland, Italy, Austria and Germany for over a year, returning to California in 1887, since which time he has engaged in fruit culture, sheep raising, and mixed farming, in several parts of California, but does not now own a farm. In 1883 he spent his summer vacation in Colorado, visiting Colorado Springs, Manitou, Denver, Fort Collins and Estes Park. At Colorado Springs the president of the then young college of that place

urged him to take charge of the agricultural department of that college, at a handsome salary, but he declined, on account of family and other ties in California, and because the elevation, about six thousand feet, was unpleasant to him. In April, 1906, he had an office as real estate and insurance broker, and mining secretary, in San Francisco, but it was wiped out entirely by the great fire, and his clients scattered far and wide. He says: "I shall probably spend the rest of my days in the country, and I know of no better country than Sonoma County, California. God made the country. Man made the city, and he made a bad job of it." Since 1908 he has been proprietor of the Orpington Yards (poultry farm), and since December, 1909, has been county sub-agent of the Northwestern Mutual Life Insurance Company of Milwaukee. He is also Fulton agent for the Home Fire Insurance Company, of New York.

Dwinelle was president for two years of the first State Board of Horticulture of California. His military record is brief. During the war times of 1861-63 he obtained the privilege of drilling with and wearing the uniform of "Pierce's Cadets," the pupils of a school in Rochester, N. Y., kept by the Pierce brothers. Although he did not attend the school he reached the rank of corporal. He is a member of the Presbyterian Church of Fulton, Cal., has been librarian of the Sunday school of the

First Presbyterian Church of Oakland, Cal., and treasurer of the First Presbyterian Church of Berkeley, Cal. He was a charter member of Temescal Grange, North Temescal, Cal. In politics he is a Republican.

Dwinelle edited *The Cultivator's Guide*, a semi-monthly paper published at Sacramento from April 1, 1883, to March 15, 1884; read an essay on "Rust in Wheat" before the State Board of Agriculture, at Sacramento, Cal.; and has delivered various addresses before State Horticultural Conventions, at Sacramento, Jan José and San Francisco. He has published reports on agricultural experiment work, on the university grounds, in the *University Agricultural Reports* of the College of Agriculture, and has contributed numerous articles on agriculture, horticulture, animal industry, etc., to the *Pacific Rural Press*, the *Orchard and Farm*, and other papers.

Charles A. Ferry, C. E.

Civil Engineer, with A. B. Hill, Consulting Civil Engineer
24 Edgewood Avenue, and 100 Crown Street, New Haven, Conn.

Charles Addison Ferry, '71 S., was born in Granby, Mass., January 8, 1852. He is the son of Addison Ferry and Margaret (White) Ferry, who were married February 19, 1840, and had two other children: Lyman Stewart Ferry, Yale '67 S. (died November 18, 1869); and Jennette Ferry.

Addison Ferry (born September 10, 1814, at Granby, Mass., died February 23, 1853, at Granby, Mass.) was a car builder, living at Granby and Springfield, Mass.

Margaret (White) Ferry (born February 3, 1820, at Granby, Mass.) is of Pilgrim ancestry.

Ferry prepared for Yale at the high school in New Haven, Conn., and entered Sheff in September, 1868, where he took the Civil Engineering Course.

He was married at New Haven, Conn., on October 17, 1877, to Miss Rosella Elmira Briggs, a graduate of the New Haven High School in 1875, and daughter of William A. Briggs. They have two daughters: Edna Louise Ferry (born August 13, 1883, a graduate of Mt. Holyoke in the Class of 1905), and Ruth Margaret Ferry (born December 4, 1900).

Immediately after graduation, Ferry entered the city engineer's office, New Haven, Conn.; in 1872 was appointed assistant engineer in charge of sewer department; in 1883 was appointed first assistant city engineer. This position he resigned in 1892, to enter the office of A. B. Hill, '69 S., and since June, 1892, has been principal assistant in this office. In 1891 Ferry received from Yale the degree of C. E.

He is a member of the Plymouth Congregational Church, New Haven; of the American Society of Civil Engineers and the Connecticut Society of Civil Engineers.

Charles H. Greene

No information about the biography or present whereabouts of Charles Henry Greene, '71 S., has been obtainable.

*Charles W. Griswold

Engineer

Died 1878

Charles Woodford Griswold, '71 S., son of Thomas F. and Mary Ann (Bishop) Griswold, was born in New Britain, Conn., May 15, 1852.

He graduated at the New Britain High School in 1868, and then took the course in Civil Engineering in the Sheffield Scientific School. After receiving his degree he was employed temporarily on the U. S. Coast Survey, and in October, 1871, went to New York City, where he filled the position of engineer of the Woodlawn Cemetery until his death. At the end of January, 1878, he was attacked with a disease of the brain induced by overwork, which after two or three sleepless nights developed into acute mania. At the urgent advice of his physician he was removed to the asylum in Poughkeepsie, and died there, February 3, 1878, in his twenty-sixth year.

He was married, October 9, 1872, to Miss Sarah L. Garrett of Sullivan County, N. Y., who survived him with three children.

***John W. Griswold**

Iron Manufacturer

Died 1902

John Wool Griswold, '71 S., son of John Augustus and Elizabeth (Hart) Griswold, was born in Troy, N. Y., on August 30, 1850. He was a grand-nephew of General John Ellis Wool, a soldier in the War of 1812, the Mexican and Civil Wars. His father was an iron and steel manufacturer, trustee of Rensselaer Polytechnic Institute, mayor of Troy, member of Congress, and a friend whose aid to Captain John Ericsson at a critical time secured the construction of the *Monitor*.

Griswold studied three years in the Sheffield Scientific School, taking a special Course, but received the degree of Bachelor of Philosophy and was enrolled with his Class in 1898.

After finishing his course at New Haven he engaged in specialties in iron manufacture, having works at Troy and Sterling, Ill. He was elected in 1890 a trustee of the Troy Savings Bank, and of the Troy Orphan Asylum. He was a member and trustee of the Second Street Presbyterian Church in Troy. For some time past his residence had been in Bennington, Vt.

He died suddenly of heart disease at Chicago, Ill., on January 2, 1902, in his fifty-second year.

He married in 1878 Sara Noyes, daughter of George M. Tibbits, of Troy, N. Y. After her decease he married in 1885 Sarah Perry, daughter of Charles R. Randall, of New Bedford, Mass. The latter survived him with two daughters and a son, the son being a graduate at Williams College.

John N. Judson

Consulting Mining Engineer

25 Broad Street, New York City

John Nichols Judson, '71 S., was born in Bridgeport, Conn., October 14, 1851. He is the son of Frederick Joseph Judson and Catharine Ann Taylor (Chapelle) Judson, who married October 18, 1843, at St. Mary's, Ga., and had two other sons: Frederick Newton Judson (a graduate of Yale in the Class of 1866, M. A. 1869); and Isaac Nichols Judson (a graduate of Yale in the Class of 1873).

Frederick Joseph Judson (born February 14, 1804, at Old Mills, Bridgeport (then Stratford), Conn., died February 6, 1862, at Bridgeport, Conn.) was a physician, living at Bridgeport. He was graduated at Yale in the Class of 1824, and from the Medical School in the Class of 1829. He was a son of Pixlee Judson and Catharine T. (Nichols) Judson, both of whom were descended from early settlers of Stratford, the first settlement of Stratford having been made by William Judson and his three sons.

Catharine Ann Taylor (Chapelle) Judson was born in 1824 at St. Mary's, Ga., being the daughter of Dr. Isaac Newton Chapelle, and died April 5, 1880, at St. Louis, Mo.

Judson prepared for Yale at General Russell's School in New Haven, Conn., and entered Sheff in the fall of 1868, where he took the Engineering Course.

He was married at New York City, on February 24, 1900, to Miss Georgiana F. Beaver, daughter of Jacob Henry Beaver of New York. They have one daughter: Katherine Jane Judson (born at Brooklyn, N. Y., May 14, 1901).

Judson is a consulting mining engineer and metallurgist with an office in New York. He is a member of the Episcopal Church. Politically he is what is called a Cleveland Democrat, having supported Palmer in 1896, not voting in 1900 and supporting Parker in 1904 and Taft in 1908.

George M. Keasbey

Lawyer, Member of Firm Edward Q. & George M. Keasbey

Union Building, Rooms 1020-1025, Newark, N. J., and
Brielle, N. J.

George Macculloch Keasbey, '71 S., was born October 25, 1850, at Salem, N. J. He is the son of Anthony Quinton Keasbey and Elizabeth (Miller) Keasbey, who were married in 1848. He has seven brothers and sisters, all of whom are living: Edward Quinton Keasbey, Princeton B. A. '69, M. A. '72, Harvard LL. B. '71; Henry M. Keasbey; Rowland Parry Keasbey, Columbia '82; Lindley Miller Keasbey, Harvard B. A. '88, Columbia M. A. '89, Ph. D. '90, Strassburg, R. P. D. '92;

Frederick Winston Keasbey, Columbia '92; Frances H. Keasbey and Louisa E. Keasbey.

Anthony Quinton Keasbey, Yale '43, M. A. '63 (born March 1, 1824, at Salem, N. J., died April 4, 1895, at Rome, Italy) was the son of Edward Q. Keasbey, M. D., a graduate of the University of Pennsylvania, and of Mary Parry (Hertsen) Keasbey of Philadelphia. He was a lawyer connected with Cortlandt Parker, and was United States attorney for the District of New Jersey for twenty-five years, 1861-86. He was married a second time to Miss Edwina L. Miller (born August 20, 1826, at Morristown, N. J., died August 18, 1885), who was the daughter of Jacob W. Miller of Morristown, United States senator from New Jersey from 1840 to 1852, and of Mary Louisa (Macculloch) Keasbey.

Elizabeth (Miller) Keasbey died in 1854.

Keasbey prepared at the Newark Academy, Newark, N. J., and before entering Sheff in September, 1868, he studied for two years at Princeton, where he entered in 1866. He took the Select Course at Sheff and was a member of Theta Xi.

He was married on January 14, 1885, at Newark, N. J., to Miss Annie Wing Lewis, daughter of William M. Lewis, formerly a manufacturer, now deceased. They have one child: Elizabeth Miller Keasbey, born December 6, 1885, at Newark, N. J.

On leaving Yale, Keasbey went with Professor Marsh on his expedition of 1871 to Kansas, Wyoming, Oregon, and other states. On his return he lived in Newark, and began the study of law in the office of Parker & Keasbey. In 1873 he was con-

nected with an expedition under Lieutenant Wheeler, U. S. A., for explorations and surveys west of the 100th meridian. He traveled in New Mexico and Arizona and in 1878 went to South America with an expedition in connection with the Maderia & Mamore Railroad, going up the Amazon to the falls of Maderia and doing some survey work. He then went back to Newark and continued the study of law, being admitted to the bar in 1875. He has practiced ever since, first with the firm of A. Q. Keasbey & Sons, and at present with his eldest brother, Edward Q. Keasbey, being engaged in general and chancery practice, corporation work, patent law, etc. He was assistant United States attorney for a number of years, and has traveled abroad on Government business. He is a Republican, and is a member of the Episcopal Church, and of the Essex Club of Newark.

Joseph F. Klein, M. E.

Professor of Mechanical Engineering, Lehigh University

Lehigh University, South Bethlehem, Pa., and 357 Market Street, Bethlehem, Pa.

Joseph Frederick Klein, '71 S., was born October 10, 1849, at Paris, France.

Klein prepared at the public schools in New Haven, and at Russell's Commercial and Collegiate Institute,

New Haven, Conn., after which he worked in New Haven shops. While thus engaged he prepared himself for Sheff, entering in 1868. He afterwards took a graduate course in Mechanical Engineering, receiving the degree of D. E. in 1873.

He was married December 30, 1879, at Thomaston, Conn., to Miss Ada Louise Warner, daughter of Jonathan Marsh Warner, a farmer and mechanic. They have had one son and one daughter: Arthur Warner Klein, Lehigh University 1899 M. E. (born November 17, 1880, at New Haven, Conn., married Josephine Russell Brock of Huntington, L. I., N. Y.), and Mina Klein (born March 3, 1883, at Bethlehem, Pa., married Noel Guilbert Cunningham of Watertown, Conn.).

From 1878 to 1881 Klein was a tutor at the Sheffield Scientific School. On December 1, 1881, he became professor of Mechanical Engineering at Lehigh University, which position he still holds. Since 1907 he has been dean of the faculty of Lehigh University, and during the spring of 1910 was acting president of the University. He is independent in politics, but has never held any public office. He is a member of the American Society of Mechanical Engineers and Tau Beta Pi.

His published books are:

"Elements of Machine Design," Moravian Publication Concern, Bethlehem, Pa.; "Mechanical Technology of Machine Construction," Moravian Publication Concern;

"The High Speed Steam Engine," D. Van Nostrand Co., New York; and "The Physical Significance of Entropy or of the Second Law," D. Van Nostrand Co., New York. The following translations from the German: "Weisbach Herrmann's Mechanics of Machinery of Transmission," two volumes, John Wiley & Sons; "Zeuner's Technical Thermodynamics," two volumes, D. Van Nostrand Co.

His magazine articles are:

"Absolute Zero of Temperature," *Van Nostrand's Engineering Magazine*, April, 1880, Vol. XXII.; "Concerning $\frac{T_1 - T_0}{T_1}$ or the Limit of Efficiency of Heat Engines," *Journal of Franklin Institute* for March and April, 1879; "Table and Diagram for Determining the Diameters of Speed Cones when Connected by an Open Belt of Constant Length," *Franklin Institute*, May, 1880; "Cone Pully Diameters," No. 2, *American Machinist*, October 22, 1881; "The Law of Proportional Resistances," *Journal of Engineering Society of Lehigh University*, November, 1889; and "New Constructions of the Force of Inertia of Connecting Rods and Couplers, and Constructions of the Pressures on their Pins," *Journal of Franklin Institute*, September-October, 1891.

George G. Lobdell

Manufacturer, Vice-President, Lobdell Car Wheel Company
1605 Broome Street, Wilmington, Del.

George Granville Lobdell, Jr., '71 S., was born in Wilmington, Del., July 16, 1850. He is the son of George Granville Lobdell and Adeline (Wheeler) Lobdell, who were married February 5, 1842, and had nine other children: Maria Drew Lobdell (died February 24, 1892, at Philadelphia, Pa.); William Wheeler Lobdell; Anna Prince Lobdell (died July 31, 1847, at Wilming-

ton, Del.); Elizabeth Prince Lobdell (died August 28, 1855, at Wilmington, Del.); Carolyn Wheeler Lobdell; Florence Delano Lobdell (married Harry Degen Ziegler, '71 S., on April 18, 1876, died January 6, 1908); Alice Dike Lobdell; Howard White Lobdell (died December 1, 1867, at Wilmington); and Addie Wheeler Lobdell.

George Granville Lobdell, Sr. (born October 1, 1817, at New York City, died March 1, 1894, at Wilmington, Del.), was a manufacturer, with the Lobdell Car Wheel Company of Wilmington. He was president of the Lobdell Car Wheel Company, of the Wilmington & Western Railroad Company, of the Masonic Hall Company and of the Farmers Bank. He was of New England ancestry, both parents coming from Massachusetts.

Adeline (Wheeler) Lobdell (born April 12, 1817, at Grafton, Mass., died December 14, 1909, at Wilmington, Del.) was also of Massachusetts parentage.

Lobdell prepared for Yale at Taylor's School in Wilmington, and entered Sheff in September, 1868, where he took the Chemistry Course.

He was married at Wilmington, Del., on April 17, 1878, to Miss Eva Wollaston, a graduate of the Wilmington High School in 1875, and daughter of Joshua Wollaston, a manufacturer. They have three children: Edith White (born in Wilmington, May 12, 1880, a graduate of Smith in the Class of 1902, married W. W. Pusey, 2d, October 20, 1905); Ethel Lobdell (born April 30, 1884, married Fred C. Seaman, April 4, 1908); and George Granville Lobdell, 2d, Yale '08 S. (born May 1, 1887). Two sons, William and Arthur, died in infancy.

Lobdell became connected with the Lobdell Car Wheel Company, of which his father was president, in January, 1872. He was made vice-president, the position he now holds, in May, 1894. He is vice-president of the Wilmington and Brandywine Cemetery Company, a manager of the Wilmington Saving Fund Society, and a member of several charitable and social organizations. In politics he is an independent Republican.

Thomas W. Mather, M. E.

Planter, Grower of Citrus Fruit
Miami, Fla.

Thomas William Mather, '71 S., was born at Cromwell, Conn., April 30, 1850. He is a son of William H. Mather and Mary A. (Brower) Mather, who had three other children, all girls: Amelia C. Mather, Augusta H. Mather (died in 1864, in New York City), and Mary A. Mather.

William H. Mather (born at Middletown, Conn., died at Cromwell, Conn., in 1856) was a farmer living last at Cromwell, Conn. He was descended from Rev. Richard Mather, who came from England and settled in Dorchester, Mass., in 1635.

Mary A. (Brower) Mather (born in New York City, died in 1883, at New Haven, Conn.) was of Dutch descent.

Mather was a country boy following the changes in residence of his step-father, Rev. E. Coton. He prepared for Sheff at Rundels Academy in Bloomfield,

N. J., entering in September, 1868, and taking the Civil Engineering Course.

He was married at New Haven, Conn., on February 13, 1875, to Miss Margaret Wade Linton of England, a daughter of William James Linton, M. A., an engraver, artist and writer. They have six children, four sons and two daughters: William Linton Mather (born December 2, 1875; Yale '96 S.); Richard Mather (born October 3, 1877, Yale '97 S., married October 23, 1901, to Miss Dorothy Cone); Margaret (born April 6, 1880, Vassar '03, married January 12, 1904, to Thaddeus Merriman); Ulric Brower Mather (born June 8, 1883, Yale '04 S., married September 4, 1909, to Amy Thomas French); Mary Emily Mather (born September 16, 1885); and Thomas Wade Mather (born May 16, 1888, Yale '10 S.).

He received the degree of Dynamic Engineer in 1873, and was in practice as draughtsman and mechanical engineer from 1873 to 1882. He was instructor in Engineering at the Sheffield Scientific School from 1882 to 1894, and from 1894 to 1903 was principal of Boardman Manual Training High School at New Haven, Conn. Since that time he has been a grower of citrus fruits in Southern Florida, with some practice as mechanical and hydraulic engineer. He is independent in politics. From 1897 to 1900 he was chief engineer of the Naval Battalion, Connecticut National Guards.

His published works are: "Strength of Materials" (text book), 1896, Boardman School Press; "Applied Mechanics" (text book), 1902, Boardman School Press; "Flying Machines," in *Popular Science Monthly*, 1885; "Address on Manual Training High Schools," in "Proceedings of Society for Promotion of Engineering Education," 1897; address as President of American Manual Training Society, 1896 and 1897; and various articles in scientific periodicals.

Mansfield Merriman, C. E., Ph. D., Sc. D.

Consulting Civil Engineer

Winter Address, 1071 Madison Avenue, New York City

Summer Address, Milford, Conn.

Mansfield Merriman, '71 S., was born in Southington, Conn., March 27, 1848. He is the son of Mansfield Merriman and Lucy (Hall) Merriman, who were married August 4, 1834, and had one other son, Henry John Merriman.

Mansfield Merriman, the father (born December 17, 1802, at Southington, Conn., died June 2, 1871, at Southington), was a farmer and carpenter living at Southington, and was several terms selectman of the town, several terms justice of the peace and judge of probate, and one term representative from Southington to the Connecticut Legislature. He was a great-grandson of Rev. John Merriman, who removed from Wallingford to Southington about 1751, and a descendant of Nathaniel Merriman, who was born in 1613, in England, settled in New Haven about 1660, and in 1670 was one of the original settlers of Wallingford, Conn.

Lucy (Hall) Merriman (born October 5, 1805, at Wolcott, Conn., died September 18, 1880, at Southington, Conn.) was a descendant of John Hall, who came from England to New Haven about 1638. Her mother was Lucy (Dudley) Hall, whose grandparents lived in Saybrook, Conn., and later in Wallingford, Conn.

In boyhood Merriman worked on a farm in summers and attended school (Lewis Academy, Southington) winters. In 1864 he worked in factories and in 1865-66 in a printing office. He studied geometry and surveying privately, and in 1866 was appointed a county surveyor. His mathematical preparation for college was done privately, without instruction, during 1866-68. He entered Sheff in September, 1868, where he took the Engineering Course, receiving the degree of Ph. B. in 1871, and that of C. E. in 1872.

He was married at New Haven, Conn., on June 5, 1875, to Miss Wanda Kubale (died March 10, 1889, at Bethlehem, Pa.), daughter of Hans Emil Theodor Kubale of Posen, Germany. He has five children, one son having died in infancy: Thaddeus Merriman (born April 6, 1876, at New Haven, Conn., Lehigh C. E. 1897, married on January 12, 1904, to Miss Margaret Mather, Vassar A. B. '03, daughter of T. W. Mather, Yale '71 S.); Lucy (born November 20, 1877, Bryn Mawr A. B. '99, married to Frank Malcolm Farmer, M. E. Cornell, '98, on June 6, 1906); Alice Pauline Merriman (born January 2,

1882, at Bethlehem, Pa., Swarthmore A. B. '04); Richard Mansfield Merriman (born December 9, 1883, Lehigh C. E. '06, married on June 2, 1909, to Miss Anna K. Abendschain); and Norman Nathaniel Merriman (born April 18, 1886, A. B. Lehigh '05).

Merriman was married again on May 26, 1891, to Miss Anna Rosina Godshalk (died at Bethlehem, Pa., on January 8, 1907), daughter of Benjamin Godshalk of Easton, Pa. On June 6, 1910, he was married for the third time, to Miss Bazena Treat Downes, daughter of Anson Treat Downes of New York City.

He worked on the United States Engineer Corps, 1872-73; was engaged on bridge construction, 1873-74; instructor in Civil Engineering, Sheffield Scientific School, 1874-78; acting assistant United States Coast and Geodetic Survey, in charge of triangulation work in Pennsylvania, 1881-85. In 1876 he was given the degree Ph. D. at Yale, the thesis for this degree, "Elements of the Method of Least Squares," being published in 1877. He was professor of Civil Engineering at Lehigh University from September 1, 1878, to September 1, 1907. He has done expert work as consulting engineer, especially on hydraulic cases and on bridges; in 1903 was a member of the special commission appointed by Mayor Low of New York, to report on plans for Manhattan bridge. Merriman was vice-president, Section D, of the American Association for the Advancement of Sci-

ence, 1894; president of the American Society for Testing Materials, 1898-1900; president of the Society for Promotion of Engineering Education, 1896. He is a member of the American Philosophical Society, American Mathematical Society, American Society Civil Engineers, and others. He is a Democrat, in particular opposed to protection save for revenue.

His published works are: "Elements of Method of Least Squares," London, 1877; "Text Book on Method of Least Squares," New York, 1884 (eighth edition, 1901); "Mechanics of Materials," New York, 1885 (tenth edition, 1905); "Treatise on Hydraulics," New York, 1889 (ninth edition, 1911); "Strength of Materials," New York, 1897 (fifth edition, 1908); "Elements of Sanitary Engineering," New York, 1898 (third edition, 1906); "Precise Surveying and Geodesy," New York, 1899, and addresses as president of scientific organizations, articles on mathematics and engineering, and cyclopædia articles. Jointly with J. P. Brooks he is author of "Handbook for Surveyors," New York, 1895. Jointly with H. S. Jacoby he is author of "A Text Book on Roofs and Bridges," four volumes, New York, 1890-1900. Jointly with R. S. Woodward he is editor of "Mathematical Monographs," eleven volumes, New York, 1906. He was associate editor of Johnson's (afterwards Appleton's) Cyclopædia, 1892-98, writing and editing the articles on civil

engineering. Since 1908 he has been editor-in-chief of the "American Civil Engineers' Pocket Book," New York, 1911.

The honorary degree of Doctor of Science was conferred upon him in 1906 by the University of Pennsylvania.

Alfred L. Moore

Vice-President, General Manager, Superintendent, Moline
Wagon Company
620 Tenth Avenue, Moline, Ill.

Alfred Louis Moore, '71 S., was born at Fond du Lac, Wis., May 1, 1850. He is a son of Benjamin Franklin Moore and Eliza Mary (Conklin) Moore, who were married in 1844, and had nine other children, six boys and three girls: Edwin Manning Moore, Henry Conklin Moore, Mary Frances Moore, Herbert Charles Moore, Frank Moore (died May, 1863), James Madison Moore, Augusta Moore, Jessie Woodworth Moore, and George Moore.

Benjamin Franklin Moore (born July 10, 1819, at Waterville, Me., died February 20, 1904, at Fond du Lac, Wis.) lived at Fond du Lac, Wis., and was of English descent.

Eliza Mary (Conklin) Moore was born in 1827, at Poughkeepsie, N. Y., and died in August, 1904, at Fond du Lac, Wis.

Moore prepared for Sheff at the high school in Fond du Lac, entering in September, 1868, and taking the Civil Engineering Course.

He was married in Fond du Lac, Wis., on May 20,

1875, to Miss Sarah Louisa Colman of Fond du Lac, a daughter of Edward Colman. They have had two children, one son and one daughter: Edward Colman Moore (born January 22, 1877, Yale '99), and Alice Moore (born March 15, 1892).

He is a Republican.

*Daniel H. Pierpont

Surveyor

Died 1874

Daniel Hobart Pierpont, '71 S., was the son of Rufus and Harriet Pierpont, and was born in North Haven, Conn., May 8, 1851.

Almost immediately after graduation he was employed by the United States Coast Survey, under Mr. R. M. Bache, in the survey of the region about New Haven, and was thus engaged until near the time of his death. His health began to fail in the spring of 1873, and he died of a pulmonary affection, at his father's residence in North Haven, May 17, 1874. He was unmarried.

*Ferdinand E. Powell

Died 1872

Ferdinand Eugene Powell, '71 S., was born in Lyonville, Uwchlan Township, Chester County, Pa., June 3, 1849.

After graduating at the Sheffield Scientific School, he entered Columbia College Law School. He died, of a kidney disease, in New York City, May 20, 1872.

***John F. Quigley**

Civil Engineer and Manufacturer

Died 1897

John Franklin Quigley, '71 S., oldest son of Philip and Eliza Quigley, was born in Wilmington, Del., on November 14, 1848.

After graduation he accompanied Professor Marsh on a six-months' trip to the West for the collection of fossils, and after his return engaged in business with his father in his profession as a civil engineer. They received the contract for building the Machinery and Agricultural Halls at the Centennial Exhibition held in Philadelphia in 1876, and soon after that date he went into the manufacturer of wood-pulp. He built and owned the Cliff Pulp & Paper Mills at Niagara Falls, and afterwards engaged in a similar work at Harper's Ferry, Va. At the time of his death he was president of the American Hard Fibre Company of Newark, Del.

He died suddenly, at his home in Wilmington, from hemorrhage of the brain, on March 27, 1897, in his forty-ninth year.

He married on October 28, 1875, Martha E., daughter of Abel J. Barrett, formerly of Concord, Mass., who survives him.

Frederick L. Sanford

Engraver on Wood

1382 and 828 Chapel Street, New Haven, Conn.

Frederick Lockwood Sanford, '71 S., was born at New Haven, Conn., May 9, 1849. He is a son of Lockwood Sanford and Almirah (Smith) Sanford, who were married April 7, 1844, and had one other child, Henrietta F. Sanford (died at Middletown, Conn., March 2, 1902).

Lockwood Sanford (born April 5, 1817, at Naugatuck, Conn., died November 22, 1890, at New Haven, Conn.) was an engraver on wood. He was the son of Elias Bristol Sanford and Sally (Lockwood) Sanford.

Almirah (Smith) Sanford (born February 15, 1810, at East Windsor, Conn., died December 7, 1891, at New Haven, Conn.) was the daughter of Asaph Smith and Betsey (Abbey) Smith.

Sanford prepared for Sheff at the Stiles French School in New Haven, entering in September, 1868, and taking the Civil Engineering Course.

He was married at New Haven, Conn., on October 20, 1892, to Miss Isabella Lydia Brown of New Haven (born October 10, 1863), a daughter of William Brown. They have no children.

Immediately after graduating in 1871, he was engaged in surveying in the vicinity of New Haven, Conn., with Professor R. M. Bache of the United States Coast Survey. In September, 1872, and until July, 1876, he was with F. W. Beers of New York, engaged in surveying in several of the western states, in connection with the publishing of county atlases or maps of different counties located in those states. From 1876 up to the present time he has been engaged as an engraver on wood at 828 Chapel Street, New Haven, Conn., from 1876 to 1890 in connection with his father, and since that time as proprietor of the business.

Henry B. Sargent, M. A.

Vice-President and General Manager, Sargent & Co., New Haven

247 Church Street, New Haven, Conn.

Henry Bradford Sargent, '71 S., M. A. 1907, was born in New York City, March 4, 1851, the eldest son of Joseph Bradford and Elizabeth Collier (Lewis) Sargent. His brothers are: Edward Rupert Sargent, '80 S.; Joseph Denny Sargent, '81 S.; George Lewis Sargent, '81 S.; Russell Sargent, '84 S. (died April 16, 1904); and John Sargent, '94 S. His brothers-in-law are: Bruce Fenn, '77 S.; William Acker Rice, '86 S.; Samuel Herbert Fisher, '89.

His father (born December 14, 1822, at Leicester, Mass., died July 14, 1907, at New Haven, Conn.), the founder and head of Sargent & Co., hardware manufacturers, was in public service in New Haven for many

years, as town selectman, as member of the City Board of Public Works, and from 1891 to 1895 as mayor of the city. He was the third child of Joseph Denny and Mindwell (Jones) Sargent, both of Leicester, Mass., and descendant of William Sargent, the first of the family in America, who came in 1638 from Northampton, England, to Malden, Mass.

His mother (born January 14, 1829, at Macon, Ga., died September 25, 1874, at New Haven, Conn.) was the eldest daughter of Curtis and Jane (Collier) Lewis of Macon, Ga.

Sargent lived in New York City from 1851 to 1857; in New Britain, Conn., from 1857 to 1864, and thereafter in New Haven, Conn. He prepared for Sheff at the New Haven High School, entering with his Class in the fall of 1868, graduating in the Chemical Course.

In the summer and fall of 1870 he was a member of the pioneer paleontological expedition under Prof. O. C. Marsh on a six-months' exploration of the bad lands west of the Mississippi River.

He was junior officer of the Sheffield Undine Boat Club, and pulled bow oar on its six-oared crew. In 1871 he personally built, for the department racing shell, the sliding seats used in winning the spring race, being the first ever used in class races. He is Secretary of the Class of 1871 S.

He was married at New Haven, Conn., December 4, 1879, to Miss Harriet Amelia Oaks of New Haven, daughter of Charles Henry Oaks. Her brother,

Henry Augustus Oaks (died 1885), was a graduate of Yale of the Class of 1875. There were born three sons and two daughters, all at New Haven: Elizabeth Collier Sargent (born September 12, 1880); Ziegler Sargent, Yale '03 (born December 10, 1881); Rhoda Miles (born February 5, 1883, married on October 3, 1907, Robert Fingland Tilney, 2d, Yale '05); Murray Sargent, Yale '05 (born August 30, 1884); and Bradford Sargent (born January 1, 1890, died February 28, 1897).

On graduating, he entered the employ of Sargent & Co., was soon made assistant superintendent, vice-president since 1887, and for some years has been general manager of the company. He traveled in Europe in 1878 and 1909.

Since 1878 he has been a graduate member of the Yale University Athletic Committee, through its many changes in organization, and was for many years its secretary. He was a director and treasurer of the Yale Field Corporation from 1880, the beginning of its fund, to 1899, the Field Corporation being later absorbed by the University.

In 1902 he was presented by the Class with a silver loving cup. He was elected by vote of the alumni a fellow of Yale in 1902, and reelected in 1908.

He was for several years a director of the Organized Charities in New Haven, and a trustee of the National Savings Bank. He is now director of the New Haven Dispensary, of the City Bank, a member

of the Connecticut Academy of Arts and Sciences, and of the New Haven Chamber of Commerce.

As a Republican he was elected and served as New Haven city councilman for three terms, in 1883, 1884 and 1885. As a Mugwump he was active in the Cleveland campaigns, and as a Free Trade Democrat he has steadily refused to be a candidate for any office.

The history of the development and change in the religious opinions of Christendom, has led him to avoid subscribing to any particular religious faith to-day which theological evolution may warrant his changing to-morrow.

He was formerly a member of the Reform Club of New York. He is a life member of the Yale University Club, and a member of the Colby, Graduates, Lawn, and Country Clubs of New Haven; and of the Yale Club, the Century Association, and the American Society of Mechanical Engineers of New York.

*Edward C. Terry

Inventor of Steam Turbines and Electrical Devices

Died 1908

Edward Clinton Terry, '71 S., was born in Plymouth, Conn., December 10, 1850. He was the son of James Terry and Elizabeth (Hollister) Terry, who were married in 1844, and had no other children.

James Terry (born July 5, 1823, at Plymouth, Conn., died at Terryville, Conn.) was a manufacturer, president

of the Eagle Lock Company at Terryville, Conn., and was also a member of the State Legislature.

Elizabeth (Hollister) Terry was born in 1820, at Glastonbury, Conn., and died in 1853, at Terryville, Conn.

Terry prepared for Yale at the public high school in Hartford, Conn., and entered Sheff in 1868, where he took the Civil Engineering Course. In Sheff he was a member of Book and Snake, and of the Chess Club.

He was married on February 28, 1872, at Terryville, Conn., to Miss Louise Ellen Webster of Plymouth, Conn., daughter of the late Benjamin Webster. They had two children: James Terry (born February 1, 1873, at Terryville, Conn., Yale '95 S., married on November 9, 1904, to Miss Leontine McArthur Thomson), and Charles Webster Terry (deceased).

Soon after graduation Terry became secretary of the Hartford (Conn.) Meter Company, a company formed to manufacture water meters of his invention. As the result of his studies carried on through many years he achieved a high reputation in hydraulic and mechanical engineering and originated several devices of great utility.

Having successfully applied his idea of transmitting electric power over long distances by means of wires, he founded the Farmington River Power Company for the transmission of electric power from the

Farmington River to Hartford, a distance of twelve miles. This was the first long-distance power plant in the country, and of this he was secretary and a director from its organization until his decease. He was also construction engineer and general manager. About 1888 he began his studies in steam turbines, obtaining patents for those of high speed in 1893, 1899 and 1900, and in 1903, 1905 and 1908 for those of low speed. He perfected a low-speed steam turbine, organizing in 1906 for its manufacture the Terry Steam Turbine Company, of which he was president, and of which his son, James Terry, is the secretary and treasurer. He had a wide reputation as a man of high scientific ability and keen analysis. He was a member of the American Society of Civil Engineers, of the Hartford Club and of the Hartford Golf Club. During the year 1901 he traveled in Europe.

He died of pneumonia following a week's sickness at his home, 175 Collins Street, Hartford, Conn., on April 6, 1908, in the fifty-eighth year of his age.

Harry D. Ziegler

Director, Hunnis Distilling Company

214 South Forty-first Street, and 218 South Front Street,
Philadelphia, Pa.

Harry Degen Ziegler, '71 S., was born at Philadelphia, Pa., July 11, 1850. He is a son of George K.

Ziegler and Elizabeth C. (Knemerlen) Ziegler, who were married May 15, 1845, and had one other child, Caroline B. Ziegler.

George K. Ziegler (born November 1, 1822, at Philadelphia, Pa., died September 21, 1878) was a merchant, living in Philadelphia, and was a bank president and a trustee of various institutions. He was of German descent.

Elizabeth C. (Knemerlen) Ziegler (born May 2, 1822, at Philadelphia, Pa., died April 23, 1883) was of German descent.

Ziegler attended no preparatory school. He entered Sheff in 1868, where he took the Chemical Course and was a member of the Theta Xi Society.

He was married at Wilmington, Del., on April 18, 1876, to Miss Florence D. Lobdell of Wilmington, a daughter of George S. Lobdell, a manufacturer of car wheels and castings.

Since leaving college he has been a director of the Hunnis Distilling Company. He is a believer in free trade and is a hard money Democrat, but has never voted a straight ticket. He has served in the militia; the Government refused his services in the Spanish-American War on account of age. He attends the Protestant Episcopal Church and is a Mason and a member of different social clubs.

BIOGRAPHIES

1872 S

Jacob J. Abbott, C. E., M. E.

Consulting Civil and Mining Engineer

1112 Race Street, Denver, Colo.

Jacob Jackson Abbott, '72 S., was born at Uxbridge, Mass., May 19, 1850. He is a son of Jacob Jackson Abbott and Margaret Fletcher (Whitin) Abbott, who were married September 16, 1845, and had five other children: James Whitin Abbott, Yale '68, '70 S.; William Whittlesey Abbott, Yale '77 S. (died July 8, 1899, at Worcester, Mass.); Paul Whitin Abbott, Yale '83 S., of Boston, Mass.; and two daughters, neither now living.

Jacob Jackson Abbott, the father (born July 17, 1813, at Peacham, Vt., died December 3, 1878, at New Haven, Conn.), was a clergyman, settled at Bennington, Vt., Uxbridge, Mass., and Yarmouth, Me. He graduated at Dartmouth in the Class of 1839, and received the honorary degrees of A. M. and D. D. respectively from Dartmouth and Bowdoin. He was general agent of the United States Christian Commission, Washington, 1863-65, and had various connections with educational work at Dartmouth, Bowdoin, Yarmouth, Me., and elsewhere. His ancestors were of New England stock from about 1635.

Margaret Fletcher (Whitin) Abbott (born September 4, 1817, at Whitinsville, Mass.) is of New England stock, a descendant of Dwights and Whitings from the

time of the *Mayflower*. She is still living at Whitinsville, Mass.

Abbott prepared for Sheff by himself, at Yarmouth, Me., and entered in 1869. While in college he played on the Class ball team, and took entrance, Freshman and Senior prizes.

He was married at Dansville, N. Y., on February 26, 1877, to Miss Jenny Lind Farrington of Auburn, Me., a graduate of Edward Little Academy in the Class of 1868, and a daughter of Enoch Farrington, a contractor and a tenor singer of wide reputation who was one of the leaders at the Boston Peace Jubilee. They have had seven children, four sons and three daughters: Margaret Farrington (born August 6, 1878, a graduate of Wolfe Hall, Denver, in the Class of 1898, married in June, 1904, to George Walton Blanchard of Auburn, Me., who died January, 1906; married a second time, in July, 1908, to Dr. John W. Robinson of Auburn, Me.); James Dudley (born July 3, 1880, married June 14, 1906, to Miss Mary Moore MacLean); Edward Farrington (born April 3, 1882, Bowdoin 1903, married June 7, 1906, to Miss Mary Dana, twin daughters born in 1907 and a son in 1909); Jacob Jackson (born July 9, 1883, married September 1, 1909, to Miss Florence Cary, who died in November, 1909); Catharine Whitin (born November 3, 1887); Charles Cushman (born September 22, 1889); and Dorothy (born May

4, 1894, died August 28, 1896, at Lake City, Colo.). All of the children were born at Lake City, Colo.

Abbott received the degree of C. E. in 1874, and since that time has been engaged in the continuous practice of his profession as engineer, in Colorado. Since 1875, he has been a partner in the firm of Abbott Brothers, Civil and Mining Engineers. In politics he has always been Republican. He has been mayor of Lake City, Colo., commissioner of Hinsdale County, Colo., and a justice of the peace.

*James P. Bogart

Engineer and Surveyor

Died 1903

James Peter Bogart, 72 S., son of John and Henrietta M. (Candee) Bogart, was born in New Haven, Conn., on February 28, 1852.

For three years after graduation he was occupied in surveying and engineering for the city of Bridgeport, and then had charge of a party in the United States Coast and Geodetic Survey about New Haven. In May, 1891, he was appointed engineer of the Connecticut Shell Fishery Commission and served in that capacity until 1892. He was the first engineer chosen by the Commission after its organization, and completed an extensive system of triangulation of the coast from Guilford to the state line at Green-

wich. In 1887 he also surveyed the boundary line between Connecticut and Rhode Island for the Inter-State Commission. Since 1892 he had been employed in private professional work. In 1895 he was elected a member of the American Society of Civil Engineers.

From his youth he was a member of the First Methodist Church, an officer of the Sunday school, and for some time a member of the official board, but during later years he attended Saint Paul's Protestant Episcopal Church.

Mr. Bogart died of pneumonia at his home in New Haven, on December 24, 1903, in the fifty-second year of his age.

He married, on April 18, 1888, at Bridgeport, Conn., Helen, daughter of Warren H. and Eliza H. Day, who survives him with two daughters.

Wheeler DeF. Edwards, B. A., LL. B.

Lawyer

Everett, Wash., and Los Angeles, Cal.

Wheeler DeForest Edwards, '72 S., was born at Astoria, N. Y., November 9, 1851. He is a son of Walter Edwards and Sarah (DeForest) Edwards, who were married April 29, 1830, and had no other children.

Walter Edwards (born November 20, 1801, at Hartford, Conn., died April 29, 1882, at New York City) was a lawyer living in New York. He graduated from Yale in 1820. He was a son of Jonathan Walter

Edwards, Yale 1789, and a great-grandson of Rev. Jonathan Edwards, Yale 1720.

Sarah (DeForest) Edwards (born April 29, 1811, in New York City, died November 29, 1881, in New York City) was the daughter of Lockwood DeForest.

Edwards attended the College of the City of New York, and entered Sheff in October, 1871, where he took the Civil Engineering Course.

He was married in New York on October 19, 1881, to Miss Emma L. Knox, a daughter of John Mason Knox, a lawyer. They have two daughters: Katharine Livingston Edwards (born February 13, 1884, University of Washington '05), and Helena Roosevelt Edwards (born August 21, 1885, in New York).

He is practicing law independently in Los Angeles, Cal. In politics he is a Republican. He is a member of the First Presbyterian Church of Everett, Wash., and is the chairman of its Board of Trustees.

Joseph R. Gawthrop

President of Joseph R. Gawthrop & Son Co., Incorporated
Manufacturers of Commercial Fertilizers

Kennett Square, Chester County, Pa.

Joseph Ridgway Gawthrop, '72 S., was born in Newlin Township, Chester County, Pa., May 16, 1850. He is a son of James Gawthrop, Jr., and Sarah Coates

(Ridgway) Gawthrop, who were married in Philadelphia, Pa., February 15, 1849, and had three other children: Harry J. Gawthrop (born January 14, 1856); Mary H. Gawthrop (born July 9, 1851, died March 30, 1885, at Kennett Square, Pa.); and Charles G. Gawthrop (born January 16, 1864).

James Gawthrop, Jr. (born January 14, 1825, at Newlin Township, Chester County, Pa., died June 6, 1888, at Kennett Square, Pa.), was a farmer and manufacturer living at Newlin Township and Kennett Square, Pa. He was a son of James Gawthrop (born in 1781) and Hannah (Marshall) Gawthrop (born in 1784) of Chester County, Pa. James Gawthrop's antecedents came from England, being descendants of Lord Gawthrop whose coat of arms is now preserved in the family.

Sarah Coates (Ridgway) Gawthrop (born October 20, 1826, at Philadelphia, Pa., died March 3, 1883, at Kennett Square, Pa.) was a daughter of Joseph and Esther (Coates) Ridgway of Philadelphia, Pa. Joseph Ridgway was the son of Henry and Hannah (Burr) Ridgway, whose antecedents have been traced back and are of record through the Burr, Abbott, and Mauleverer branch direct to King Edward I. of England, and to sixteen of the barons who secured the Magna Charta.

Gawthrop was born in a log house on his father's farm. He was taught by his mother until old enough to walk a mile and a half to the public school at Oak Hill; he then went to Martin Academy, Marlborough; then to Durnall's Academy, Unionville, Pa. When seventeen years old he taught a public school two terms and then went to Shortleigh Academy, Kennett Square, Pa., where he prepared for Sheff. He entered the Class of 1871 in April, 1869,

taking the Engineering Course; he continued in the Class of 1871 until the end of Junior year, when he was absent from college one year on account of poor health, and subsequently entered the Class of 1872.

He was married at New Haven, Conn., on February 20, 1879, to Miss Hattie M. Mason, a daughter of George William Mason (born April 10, 1830, died June 22, 1872) and Mary Elizabeth (Howland) Mason of New Haven. They have had four children, one boy and three girls: Ridgway Mason Gawthrop (born at Kennett Square, Pa., December 23, 1879); Elsie Love (born July 3, 1881, married George B. Scarlett of Kennett Square, Pa., on December 29, 1904); Lillian Maud Gawthrop (born June 10, 1887, married Evans Rogers Jackson of Kennett Square, Pa., on October 28, 1908); and Rosalie Hannah Gawthrop (born June 28, 1895).

Gawthrop was assistant engineer in the City Engineering Department, New Haven, Conn., from 1872 to 1876. From 1876 to 1888 he was a member of the firm of J. Gawthrop & Co., Kennett Square, Pa., manufacturers of commercial fertilizers. From 1888 to 1910, the name of the firm was Joseph R. Gawthrop, he being the sole member. In January, 1910, he became president of Joseph R. Gawthrop & Son Co., Incorporated, manufacturers of fertilizers at Kennett Square, Pa.

He is a Republican and from 1888 to 1891 was a member of the Kennett Square Borough Council;

he introduced Telford paving in Kennett Square. He is a member of the Society of Friends, a member of the Yale Alumni Association of Philadelphia, a member of the University Club in that city, and a member of the First Class in the Baronial Order of Runnemedede.

William S. Greene

No information about the biography or present whereabouts of William Saunders Greene, '72 S., has been obtainable.

*George W. Hawes, Ph. D.

Instructor

Died 1882

George Wesson Hawes, '72 S., was born December 31, 1848, in Marion, Ind., where his father, the Rev. Alfred Hawes, Brown University 1841, was pastor of the Presbyterian Church. He lost his parents at an early age, and his youth was spent in Worcester, Mass., from which place he entered the Sheffield Scientific School in 1865. After two years he left the School, to enter into business in Boston; but his natural taste for scientific pursuits brought him back to New Haven in 1871 to finish his course of study.

For the year after graduation he assisted Professor Johnson in his chemical laboratory, and for the next six years filled with marked success the position of assistant and instructor in Mineralogy and Blowpipe Analysis in the Scientific School. He spent six months in the summer of 1878 in study in Breslau, and in March, 1879, again went abroad, for further study in Bonn and Heidelberg. He received the degree of Ph. D. at Heidelberg in the summer of 1880, and then returned to his old place at New Haven. In the following February he was made director of the Geological Department of the National Museum in Washington, which position he held till his death. Overwork early in 1881, in connection with an investigation of the building stones of the United States, for the Census Report, developed symptoms of consumption in the fall of the same year; and after a prolonged period of weakness, he died at Manitou Springs, Colo., June 22, 1882, about a week after his arrival there, in the thirty-fourth year of his age. He was never married.

Dr. Hawes had given evidence of superior promise in the departments of mineralogy and lithology by his publications, the most important of which was a report in 1878 on the mineralogy and lithology of New Hampshire, published as Part 4 of the Geology of that state. In his private character singularly pure and winning, he is sincerely mourned by all who knew him.

Daniel W. Hering, C. E., Ph. D., LL. D.

Professor of Physics and Applied Mechanics in New York
University

128 West 129th Street, and University Heights, New York City

Daniel Webster Hering, '72 S., was born at Smithsburg, Md., March 23, 1850. He is a son of Joshua Hering and Susannah (Harman) Hering.

Joshua Hering (born in October, 1806, at Johnsville, Md., died in 1899, at Thurmont, Md.) was of Swiss and German descent.

Susannah (Harman) Hering (born in 1817, at Mechanicstown (now Thurmont), Md., died in 1876, at Thurmont, Md.) was of German and English descent.

Hering passed his childhood in farming when not at school, and schooling when not at farm; he passed the teachers' examination, and received his teacher's certificate in 1861. He prepared for college at the academy in Johnsville and in Westminster, Md., and attended Western Maryland College for a time before entering Sheff in September, 1869, where he took the Civil Engineering Course. While in college he was editor for Sheff on the *Yale Courant* in the year of 1871-72, took the prizes for studies of Freshman year and for Junior mathematics, and received honorable mention in Senior engineering. He was a member of Berzelius.

He was married in Baltimore, Md., on November 23, 1881, to Miss Mary Hollis Webster of Baltimore, a daughter of Augustus Webster, D. D. They

have two children: Doris Webster Hering (born at Westminster, Md., Vassar '04); and Hollis Webster Hering (born at Brooklyn, N. Y., Vassar '08).

Hering received the degree of C. E. from Yale in 1878, and from Western Maryland College he received the degree of Ph. D. in 1895. In 1907 he received the degree of LL. D. from the Western University of Pennsylvania, now the University of Pittsburg. He was division engineer on the Berks County Railroad (now Reading & Lehigh Railroad) in 1873 and 1874. He taught school in 1875 and 1876, and was fellow in Engineering at Johns Hopkins University from 1876 to 1878. From 1878 to 1880, he was assistant engineer of the Baltimore & Cumberland Valley Railroad. He was professor of Mathematics in Western Maryland College from 1880 to 1884, and professor of Physics in the Western University of Pennsylvania in the year 1884-85. Since July, 1885, he has been professor of Physics and Applied Mechanics in New York University; and since 1902, dean of the graduate faculty in that institution.

In politics he is a Republican and independent. He is a fellow of the American Association for the Advancement of Science and of the New York Academy of Sciences, and a member of the American Physical Society and of the National Geographic Society.

He has published numerous articles in the follow-

ing periodicals: *Scientific American*, *Science*, *Popular Science Monthly*, *Engineering News*, *Electrical World*, *American Electrician*, *Youth's Companion*, *Education*, *Compressed Air*, "New International Encyclopedia," "The Proceedings of the National Educational Association," "The Annals of the New York Academy of Sciences," and other periodicals and pamphlets.

*Charles L. Johnson

Manufacturer

Died 1901

Charles Louis Johnson, '72 S., son of David Treat Johnson, a contractor and builder and during the Civil War captain of the Twenty-third Connecticut Volunteers, was born in Ansonia, Conn., on March 15, 1850. His mother's maiden name was Sarah Lindley.

Johnson had hoped to enter West Point and follow his father's footsteps into the army, but failed to secure an appointment. He was then at once admitted to the Sheffield Scientific School.

For a few months after graduation he was a clerk in the post office at Ansonia, but the following spring entered the office of the Candee Rubber Company in New Haven, with which he was continuously connected thereafter. His ability was soon recognized,

and a year later he became secretary of the company, and in 1887 treasurer, with a general oversight of the selling department. In 1892, when the United States Rubber Company was formed, he was elected secretary and director in charge of sales, and in May, 1901, to the important and very responsible position of general manager. He was also a member of the executive committee and director of the company, and director of other companies for the manufacture of rubber and other goods. The office of treasurer of the Candee Company he continued to hold to the close of his life, but resigned that of secretary of the United States Rubber Company in 1896. He was devoted to his business, and usually took but short vacations, but in the summer of 1898 enjoyed an extended trip abroad. He frequently wrote articles for the trade journals.

During the spring and early summer of 1901 Mr. Johnson had not been at all well, but continued his official duties, and later in the summer steadily improved in health, and his death was entirely unexpected. It occurred at his home in New Rochelle, N. Y., from hemorrhage of the brain, on October 8, 1901. He was fifty-one years of age. He was known for his integrity and for an uncommon equability of temperament.

He married, in Paris, France, in June, 1899, Bertha, daughter of H. P. Moorhouse, for many years the representative of the Candee Company on

the continent. Mrs. Johnson survives him with a young son.

Cassius W. Kelly, B. A.

City Engineer of New Haven, Conn.

209 Norton Street, and City Hall, New Haven, Conn.

Cassius William Kelly, '72 S., was born at Pleasantville, Vanango County, Pa., May 10, 1848. He is the son of John Kelly and Sarah (Sigler) Kelly, who were married May 6, 1847, and had three other children: Lemuel Kelly, Mary L. Kelly, and Flint W. Kelly.

John Kelly (born April 15, 1823, at Titusville, Pa., died June 15, 1906, at Titusville, Pa.) was a business man living at Pleasantville until 1865, at Erie, Pa., until 1896, and at Titusville, Pa., until his death. He was the son of William and Mary Kelly of Titusville, Pa., who acquired the farm at Kelly Hill by actual settlement under the laws of Pennsylvania.

Sarah (Sigler) Kelly (born January 6, 1827, in York County, Pa., died August 21, 1855, at Pleasantville, Pa.) was the daughter of Cornelius and Margaret Sigler.

Kelly prepared for college at Erie Academy in Erie, Pa., and entered (in 1865) the Class of 1869, Academic. After a year, for financial reasons, he stayed out for a year and taught, then entered the Class of 1870. After graduation he taught again for a year in General Russell's Military School in New Haven, and then entered Sheff as a Senior with the Class of 1872, receiving the degree of Ph. B. at

the end of the year. He took the Civil Engineering Course.

He was married at New Haven, Conn., on October 2, 1876, to Miss Frances E. Hart of New Haven, a daughter of William Hart. They have had four children: Herbert Cassius Kelly (born August 16, 1881, Yale '03, died February 4, 1909); Miriam Frances Kelly (born July 5, 1884, Mt. Holyoke '08); Elsie Louise Kelly (born December 16, 1885); and Myra Linsley Kelly (born November 14, 1888, and died January 15, 1905).

Since January, 1893, Kelly has been city engineer of New Haven. He is a Republican, and a member of the Knights of Honor. He is a member of Dwight Place Congregational Church, New Haven, and was for five years a member of the prudential committee of that church, and is again serving on that committee.

*Samuel T. Knapp

Banker and Broker

Died 1889

Samuel Trevor Knapp, Jr., '72 S., only son of Samuel T. and Angeline M. (Winkler) Knapp of New York City, was born on August 10, 1854, and died in the same city on November 11, 1889, in the thirty-sixth year of his age, from the effects of pneumonia contracted in the preceding August.

In Sheff he was a member of Theta Xi and after graduating he had pursued a business career in New York City, and at the time of his death was a member of the firm of F. B. Freeman & Co., bankers and brokers. He had never married.

*Harrison W. Lindsley, C. E.

Architect and Instructor

Died 1893

Harrison Wheeler Lindsley, '72 S., was born in New Haven, on February 6, 1853, the eldest son of Prof. Charles A. Lindsley, M. D. Yale 1852, and Lydia L. (Harrison) Lindsley.

After graduating in 1872 and taking a further course, of one year, in the engineering department, with the degree of C. E., he spent a year or two in New York, devoting himself to architecture. In 1875 he went to Europe and spent nearly three years at *l'École des Beaux Arts* in Paris, devoting his vacations to travel in Germany and England, visiting some of the finest examples of architecture in those countries. In 1878 he returned to New Haven, and was engaged at once as instructor in Architecture in the Yale School of the Fine Arts, entering at the same time into practice as an architect.

In 1883 he was married to Miss Julia Irene Coe of New Haven, who survives him. He removed to the

city of New York in 1886, still pursuing his chosen profession. After about five years in that city of close and severe application, his health became impaired, and he returned again to his native place in 1891 and resumed his practice. He was again invited to renew his connection with the college, and engaged in the duties of instructor in Perspective in the Art School.

In the discharge of his duty he was ever faithful and conscientious, but his disposition was too modest and retiring, his nature too refined and sensitive, to be a successful competitor in the arts and practices known to the world as "business." Only the few who knew him well could fully appreciate his worth both professionally and as a man.

For some months before his death he had a pulmonary trouble, which under the influence of an outdoor life and partial rest, was apparently improving; but he was attacked with pneumonia and after a brief illness died in New Haven on the 29th of December, 1893, aged nearly forty-one years.

Frank O. Maxson, C. E.

Civil Engineer, U. S. Navy

647 East Capitol Street, Washington, D. C., or U. S. Naval Station, Key West, Fla.

Frank Oscar Maxson, '72 S., was born at Stillmanville, Conn., August 8, 1851. He is a son of Frank Max-

son and Juliet (Lanphear) Maxson, who were married November 27, 1848, and had four other children: Louis William Maxson, Yale '76; Julia Ellen Maxson; Herbert Elmer Maxson; and Albert Edward Maxson (died at Westerly, R. I., in 1864).

Frank Maxson (born November 11, 1822, in Rhode Island, died October 11, 1902, in San Francisco, Cal.) was a son of Asa Maxson and Mary (Chapman) Maxson.

Juliet (Lanphear) Maxson (born October 5, 1826, in Rhode Island, died November 16, 1863, in Woodville, R. I.) was a daughter of William Lanphear.

Maxson prepared for the Classical Course in college at the Norwich Free Academy, Norwich, Conn., passing the entrance examinations at Yale in 1869. Preferring, however, mathematics to the classics, he entered Sheff in the fall of that year, taking the Civil Engineering Course, graduating at the head of that division in 1872.

He was married in Washington, D. C., December 26, 1877, to Miss Evelyn May Van Doren of that city, who graduated from the Washington Normal School in 1875, and is a daughter of Rev. William Theodore Van Doren, Rutgers '40, and Jane Aletta (De Graw) Van Doren. They have three children: Frank Theodore Maxson, M. D. University of Pennsylvania '02 (married January 5, 1904, to Miss Anna Criswell Boyd); Evelyn Juliet Maxson; and Louis Herbert Maxson, B. A. Boston University '06, and M. D. University of Pennsylvania '10.

Maxson taught mathematics and the sciences in the Norwich Free Academy, 1872-73. He took the postgraduate course in Civil Engineering at Sheff in the year 1873-74. In July, 1874, he joined the United States Geographical Surveys West of the 100th Meridian, under Lieut. George M. Wheeler, Corps of Engineers, U. S. A., and during this and succeeding field seasons mapped extensive areas in Colorado, New Mexico, Texas and California. In October, 1881, he left the survey, having been appointed civil engineer, United States Navy. He has been stationed since at the navy yards or stations at Pensacola, Fla.; New York City; Port Royal, S. C.; Boston, Mass.; Washington, D. C.; Mare Island, Cal.; Puget Sound, Wash.; Norfolk, Va.; League Island, Pa.; Portsmouth, N. H.; Key West, Fla.; Cavite, P. I.; and Olongapo, P. I.

He received the degree of C. E. from Yale in 1882. He is a member of the Presbyterian Church, and has twice been made elder in that organization.

Robert D. M. Maxwell

Lawyer

810 West End Trust Building, Philadelphia, Pa., and 5908 Wayne Avenue, Germantown, Philadelphia, Pa.

Robert Douglas Millholland Maxwell, '72 S., was born July 12, 1852, at Baltimore, Md. He is the son of William Davy Maxwell and Lydia E. (Millholland) Maxwell, who were married October 2, 1851, at Balti-

more, Md., and had two other children: Mary Davy Maxwell (died October 4, 1909, at Wilmington, Del.), and Ann Millholland Moore, who is still living at Wilmington, Del.

William Davy Maxwell (born August 29, 1829, at Baltimore, Md., died November 19, 1885, at his residence at Wilmington, Del.) was a printer, the son of Joshua and Mary Davy Maxwell of Baltimore, Md. He resided at Baltimore, Md., and afterwards at Wilmington, Del.

Lydia E. (Millholland) Maxwell (born in 1828, at Baltimore, Md., died January 2, 1900, at Philadelphia, Pa.) was the daughter of Robert Douglas Millholland and Ann Day Millholland.

Maxwell prepared at F. Clarkson Taylor's Academy in Wilmington, Del., and entered Sheff in September, 1869, where he took the Select Course, and was a member of Theta Xi.

He was married on April 25, 1882, at Philadelphia, Pa., to Miss Cora Ziegler, daughter of George K. Ziegler, a merchant and bank president, who is still living. They have had four children, all born at Philadelphia: George Ziegler Maxwell (born July 4, 1883, died in 1885, at Philadelphia); Mary Davy Maxwell, B. A. Wellesley '07, (born October 13, 1884); Robert D. Maxwell, Jr. (born August 23, 1887, died July 27, 1910, near Doylestown, Bucks County, Pa.); and Harry Ziegler Maxwell, Yale '12 (born January 11, 1891).

Maxwell has been engaged in the practice of law since September 20, 1875.

***George N. Miller**

Died 1904

George Noyes Miller, '72 S., son of John Ransom and Charlotte (Noyes) Miller, was born in Putney, Vt., September 13, 1845. In Freshman and Senior years his residence was Wallingford, Conn., and in Junior year Lenox, Madison County, N. Y. He was a nephew of John Humphrey Noyes (Dartmouth 1830), founder of the Oneida and Wallingford Communities, and was actively connected with their work during a large part of his life, residing since 1880 at Niagara Falls, N. Y., New York City, and Short Beach, Conn.

He married, at Oneida, N. Y., August 14, 1870, Annie Elizabeth, daughter of Daniel M. and Lavinia E. (Chapman) Kelly, and had a son and daughter.

Mr. Miller died at Short Beach, Conn., July 11, 1904, at the age of fifty-eight years.

***Charles T. Morse, LL. B.**

Lawyer

Died 1889

Charles Theodore Morse, '72 S., the youngest son of Gardner and Mary L. (Brigham) Morse, was born in New Haven, Conn., April 4, 1853.

In Sheff he was a member of Theta Xi. After graduation he took a course of study in the Yale

Law School, receiving the degree of LL. B. in 1876. For a time he practiced law in connection with the Hon. Henry E. Pardee, and became much interested in local political affairs. After serving in the Common Council he was elected city clerk, and filled that office from 1879 to 1881. Later, he was a member of the staff of Governor Andrews, with the rank of colonel.

He was of delicate constitution, and by reason of failing health spent a large part of his later life in travel. During the last year symptoms of consumption appeared; and after spending the winter in South Carolina, he went at the beginning of March to California. He died in Pasadena, in that state, May 12, 1889, in his thirty-seventh year.

He was married in February, 1887, to Miss Marion Burrage of Boston, who survives him.

*Thomas P. Nevins

Died 1875

Thomas Perkins Nevins, 72 S., son of David H. and Cornelia L. (Perkins) Nevins, was born March 1, 1850, in the city of New York, whence his parents removed in 1859 to Waterford, Conn.

He was educated for the profession of a civil engineer, but not finding any satisfactory opening he abandoned the plan. The greater part of the two

years after graduation he spent with friends in New York City. In the summer of 1874 his health began to fail, and after his return from a brief pedestrian tour in England grew rapidly worse. In November he returned to his father's house in Waterford, and there died in January, 1875, aged nearly twenty-five years.

Prof. Theophil M. Prudden, M. D., LL. D.

Formerly Teacher, now engaged in General Literary and
Scientific Work

160 West Fifty-ninth Street, New York City

Theophil Mitchell Prudden, '72 S., was born in Middlebury, Conn., July 7, 1849. He is a son of George Peter Prudden and Eliza Ann Johnson, who were married November 4, 1839, and had four other children: Edward Payson Prudden (died April 14, 1843, at Medina, N. Y.); Henry Johnson Prudden (died July 2, 1890, at New Haven, Conn.); Theodore Philander Prudden, Yale 1869, M. A., B. D. 1873, D. D. Illinois College 1890; and Lillian Eliza Prudden, Vassar 1875.

George Peter Prudden, Yale 1835, B. D. 1839, (born February 13, 1816, at Orange, Conn., died August 20, 1872) was a clergyman living at Medina, N. Y., Middlebury, Southbury and Watertown, Conn. He was a descendant of the seventh generation of Rev. Peter Prudden, founder of colony and pastor of the first church in Milford, Conn.

Eliza Ann Johnson (born March 29, 1819, at South Britain, Conn., died January 6, 1889) was a daughter of Eben Johnson and Sally (Mitchell) Johnson.

Prudden attended public and private schools in various towns in New England and prepared for Yale at Wilbraham Academy, Wilbraham, Mass. He entered Sheff in 1869, where he took the Biological Course, and the Medical School in 1873. In college he was scientific editor of the *Lit*, and a member of Berzelius. He took the state scholarship and the prize in mineralogy.

He is unmarried.

He received the degree of M. D. in 1875, and the degree of LL. D. in 1897. After a year of hospital service in New Haven, he spent two years in post-graduate medical studies in Germany. From 1892 to 1909 he was professor of Pathology at the College of Physicians and Surgeons, Columbia University, New York City, since which time he has been engaged in literary and scientific work. His summers have been spent in travel, chiefly in the United States. One summer he hunted fossils with Prof. O. C. Marsh, and for eight summers he wandered with pack train over Colorado, Utah, Arizona and New Mexico, locating prehistoric ruins. For politics he believes in good citizenship.

He has been president of the New York Pathological Society, and of the Practitioners Society of New York, and is an honorary member of the Connecticut State Medical Society and of the Alumni Association of the College of Physicians and Surgeons of New York, and one of the directors of the

Rockefeller Institute for Medical Research. He is a member also of the National Academy of Sciences, the Association of American Physicians, the New York Academy of Medicine, the American Association of Pathologists and Bacteriologists, the Society of American Bacteriologists, the New York Pathological Society, the American Anthropological Association, the American Folk-Lore Society, the American Ethnological Association, the New York Historical Society, the American Geographical Society, the Archæological Institute of America, the Landmarks Club, the Sequoia League, University Club, the New York Athletic Club and the Century Club.

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Prof. Thomas H. Russell, M. D.

Professor of Clinical Surgery in Yale Medical School, and
Practicing Physician and Surgeon

79 Trumbull Street, New Haven, Conn.

Thomas Hubbard Russell, Ph. B., '72 S., M. D. '75, was born in New Haven, Conn., December 21, 1851. He is the son of William Huntington Russell and Mary

Elizabeth (Hubbard) Russell, who were married August 29, 1836, and had four other sons: Talcott Huntington Russell, B. A. Yale '69, LL. B. Columbia '71 (who was instructor on Municipal Corporations in the Yale Law School from 1892 to 1900); Phillip Gray Russell, B. A. Yale '76, LL. B. Yale '78 L. (a member of Skull and Bones Society, died from acute disease of kidneys caused by appendicitis, July 21, 1900, at Washington, D. C.); Edward Hubbard Russell, Ph. B. Yale '78 S. (a member of Book and Snake Society at Yale, the inventor of the "Russell Processes for silver ores," residing in England); and Robert Gray (died from acute dysentery, August 21, 1881, while a member of the Sophomore class at Yale).

William Huntington Russell was born August 12, 1809, at Middletown, Conn., and died from apoplexy May 19, 1885, at New Haven, Conn. He graduated at the head of his class (valedictorian) in 1833 at Yale College and was a member of Skull and Bones Society. Later he was a tutor in college. Financial adversity which caused him to be self-supporting in college compelled him to give up studying theology and seek immediate income from teaching. He was an educator and founded and superintended for about fifty years a large college preparatory school. He was a strong Abolitionist and one of the founders of the Republican party. Before the war he was the Connecticut representative of the National Kansas Anti-Slavery Committee, and to some extent was associated with John Brown, the anti-slavery pioneer and martyr, who visited him a number of times at his house and appointed him trustee of one of his wills. He had a military training before entering College, having been for several years a cadet in the famous Military Academy founded and conducted by Capt. Alden Partridge, U. S. A., a graduate of West Point and for twelve years previously professor and military superintendent at the National

Academy at West Point. General Sherman said that Academy at one time almost rivaled West Point. At the outbreak of the Civil War, first by appointment of Governor Buckingham, and later by act of the Legislature, he was appointed major general to organize the state militia and prepare and forward troops for the war. He held the appointment throughout the war and for some years later. Such was his earnestness in the prosecution of the war that, it being impossible to send his five sons into the army (as he otherwise would have done), because the oldest was only about thirteen years of age and the youngest an infant, he hired five men to represent them in the army, who otherwise would not have enlisted. Immediately after his death the veteran soldiers of Admiral Foote Post, G. A. R., passed the following resolution: "Resolved, That on Saturday next, May 30th, and on all future Decoration Days in which we may participate, we will decorate the grave of Major General William Huntington Russell in the same spirit of affectionate respect with which we lay our garlands upon the graves of our comrades." Sixteen years after General Russell's death a meeting commemorative of his public services was held in the hall of the New Haven Colony Historical Society at which addresses were made by Rev. E. S. Lines, President of the Society, and other prominent men. He was a son of Matthew Talcott Russell, Yale 1779 (tutor at Yale four years, attorney at law, state's attorney, and thirty years deacon in the First Congregational Church in Middletown) and of Mary (Huntington) Russell, oldest daughter of Rev. Enoch Huntington, Yale 1759, a member of the Yale Corporation twenty-eight years (1780-1808), and secretary of the Yale Corporation from 1788 to 1793. Three of his brothers were prominent Congregational clergymen. Mary (Huntington) Russell was niece of Samuel Huntington, LL. D. Yale, signer of the Declaration of Independence, president

of the Continental Congress in 1779, 1780 and 1781, chief justice of the Superior Court, and governor of Connecticut ten years, until his death. Eleven ancestors of William Huntington Russell were college graduates, of whom ten were prominent in the ministry and one entered the legal profession; two were founders of Yale College, four were members of the Yale Corporation, one was a member of the Corporation of Harvard College, and one was secretary of the Yale Corporation. Rev. E. S. Lines, bishop of Diocese of Newark, president of the New Haven Colony Historical Society, wrote of General Russell that he had "a New England ancestry than which one more distinguished could hardly be named," again that "he threw himself into the anti-slavery movement with all his heart," and that he "has a high and influential place among those who made the antislavery sentiment of the North and especially of New England." Every male ancestor was a college graduate from a date previous to the founding of Yale. Since Yale was founded every male ancestor graduated from Yale. Of the present generation all five sons graduated at Yale except one, who died from acute dysentery in Sophomore year. General Russell was descended from a very prominent Puritan ancestry, among whom were Rev. Thomas Hooker, one of the greatest of the Puritan pastors, founder and first pastor of Hartford, and Joseph Talcott, judge of the Supreme Court, governor of Connecticut seventeen years (1724 and 1741) until his death in office, and one of the original proprietors of Hartford. Various Russell ancestors married into old and very prominent New England families. Rev. William Russell, Yale 1709, sixteen years member of Yale Corporation, and Rev. Jonathan Edwards, Yale's most famous graduate and theologian, and president of Princeton College, married sisters. Kingsley History of Yale College states concerning Rev. William Russell, Yale 1709, that he was offered the

position of rector or president of Yale College "and was the first of the Alumni to receive that honor from his Alma Mater" but could not accept because "negotiations with the people of Middletown for the removal of their pastor were ineffectual." Many other prominent Yale men were related by marriage in various generations.

Mary Elizabeth (Hubbard) Russell (born May 23, 1816, died December 11, 1890, at New Haven) was a daughter of Thomas Hubbard, professor of Surgery in the Yale Medical Department from 1829 until his death from dysentery in 1838, whose ancestry extended back to the early Puritans. He was president of the Connecticut State Medical Society for five years, and one of the Corporators (founders) of the New Haven Hospital.

Russell prepared for Sheff at his father's school, and in 1868 at Clinton, N. Y., where while residing in the family of his uncle, Rev. Simeon North, D. D., LL. D. (previously eighteen years president of Hamilton College), he studied under a private tutor. He entered his Class in 1869. While in college he was a member of Book and Snake Society.

He was married at New Haven, on December 21, 1882, to Miss Mary Munson of New Haven, a graduate of European and American boarding schools, and a daughter of Lyman Ezra Munson (Yale '51 L., formerly justice of the Supreme Court of Montana). Major E. L. Munson, U. S. A., Mrs. Russell's only brother, is a Yale graduate (B. A. Yale 1890, and M. D. Yale 1892) and is professor in the Army Service School at Fort Leavenworth for

instruction of officers in the United States Army. He published a large volume which was adopted by the United States Government for that work and by foreign governments. Thomas H. Russell has three sons and two daughters: Mary Talcott Russell; Thomas H. Russell, Jr., Ph. B. Yale 1906 S., M. D. Yale 1910 (who in Freshman year was one of the original founders of the Young Men's Christian Association in the Medical Department and later its secretary and president; he was president of the Senior Class and representative of the Medical Department on the Board of Directors of the Yale Coöperative Corporation; at graduation he received the "Cum laude" degree in medicine for general excellence in all the studies and examinations of the four years' course in medicine; he has gone for his second period of study in Germany, and is a member of the Graduates Club and Lawn Club); William Huntington Russell (a member of the Class of 1912 in Yale, Academical Department); Eleanor Russell; and Edward Stanton Russell, who intends to enter Yale Academical Department.

After receiving the degree of Ph. B. in 1872, he was requested by Prof. O. C. Marsh to be assistant on his paleontological expedition, from which he returned the following winter. At the close of the expedition, Professor Marsh urged him to take up paleontology as his life work, and subsequently made other advantageous offers. He preferred, however,

immediately to take up studying medicine, which he commenced in December, 1872, and within a few months became assistant to Francis Bacon, professor of Surgery. He was Dr. Bacon's assistant six or eight years. His father having suffered severe losses by depreciation of real estate, Russell was self-supporting by teaching mathematics and other subjects during his entire course of study in the Medical Department and later until he obtained sufficient other income from medical practice. He received the degree of M. D. in February, 1875, and commenced practice at that time. In 1875, he was resident physician and surgeon in the New Haven Hospital, and during a number of years later was physician to the New Haven Dispensary. He was assistant (by appointment) to David P. Smith, professor of Surgery, from 1877 until his death in 1880. He was clinical lecturer on Surgery, 1880 to 1881, and from 1881 to 1883 was lecturer on genito-urinary and venereal diseases in the Yale Medical Department, and from 1883 to 1891 was professor of *Materia Medica* and Therapeutics. From 1891 to the present time he has been professor of Clinical Surgery, and lecturer on Surgical Anatomy. He was attending surgeon (Visiting Staff) to the New Haven Hospital thirty years (February, 1878, to February, 1908), and from the latter date to the present time has been consulting surgeon to the New Haven Hospital. In 1886 he went abroad.

He and his wife and all five of his children are members of the First Congregational (Center) Church, and in politics he has always been Republican. He is a member of the American Association for the Advancement of Science, the New Haven Colony Historical Society, the American Medical Association, the Connecticut Medical Society, the New Haven County Medical Society, the New Haven (City) Medical Association and the Graduates Club.

His published works are:

“Section on Fractures of Base of Skull, with Bibliography,” in Volume IX. of the *Reference Handbook of Medical Sciences*, edited by Albert H. Buck, M. D., and published by Wm. Wood & Co., in 1894; “A Practical Argument against the Solvent Treatment of Stone in the Bladder by Mineral Waters and Other Agents,” *Proceedings of the Connecticut Medical Society*, 1892; “Jejuno-ileostomy,” *New York Medical Journal*, December 20, 1890; “New Remedies,” *Proceedings of the Connecticut Medical Society*, in 1887; “Disease of the Prostate Gland,” *Proceedings of the Connecticut Medical Society*, 1893; “Progress of Surgery,” *Proceedings of the Connecticut Medical Society*, 1893; “Prognosis of Syphilis,” *Proceedings of Connecticut Medical Society*, 1904; and “Progress of Surgery,” *Proceedings of Connecticut Medical Society*, 1904.

Charles A. Tibbals

Rector, Episcopal Church of Holy Advent
Clinton, Conn.

Charles Austin Tibbals, '72 S., was born at West Suffield, Conn., December 11, 1850. He is the son of

Rev. Nathan Tibbals and Huldah Florilla (Kelsey) Tibbals, who were married June 5, 1847, and had eight other children: Abigail Clemmens Tibbals, John Angell James Tibbals, Nathan Vincent Tibbals, Florilla Amelia Tibbals, Maria Elizabeth Tibbals, Jennie Tibbals (died in Brooklyn in 1870), Cyrus Foss Tibbals, and Lucy Treat Tibbals.

Rev. Nathan Tibbals (born September 20, 1815, at Milford, Conn., died November 18, 1898, at Brooklyn, N. Y.) was a Methodist minister, the son of Elisha Tibbals, and a direct descendant of Thomas Tibbals, one of the founders of Milford, Conn.

Huldah Florilla (Kelsey) Tibbals (born June 30, 1823, at Killingworth, Conn., died June 17, 1905) was a daughter of David Parmelee Kelsey and Elizabeth (Wilcox) Kelsey of Killingworth.

Tibbals prepared for Sheff at the Polytechnic Institute in Brooklyn, N. Y., entering in September, 1872, where he took the Select Course. In college he was a member of Theta Xi, and president of his Class for all three years. Since 1877 he has served as Class secretary.

He was married in Washington, D. C., on November 27, 1874, to Miss Mary Louise Watkins of Baltimore, Md., a daughter of Thomas Coke Watkins. They have one daughter and one son: Kate Watkins Tibbals (born April 27, 1877, at Baltimore, Md., Wellesley '99, Ph. D. University of Pennsylvania '04), and Charles Austin Tibbals, Jr. (born July 23, 1881, University of Wisconsin '04, M. A. '06, Ph. D. '08).

After leaving college, he studied for two years at the Union Theological Seminary, leaving on account of ill health. He taught for a year in Allegheny County Academy. He was ordained deacon by Bishop Whittingham in Baltimore, Md., December 13, 1877, and priest by Bishop Scarborough in Red Bank, N. J., April 25, 1878. He was rector of Trinity Church, Red Bank, N. J., from 1878 to 1881, and rector of St. Peter's Church, Brooklyn, N. Y., from 1881 to 1886. He was rector of various parishes in the dioceses of New Jersey and New York from 1887 to 1893, was without a parish from 1903 to 1906, on account of ill health. In 1906 he became rector of the Church of the Holy Communion, in Norwood, N. J., in the diocese of Newark. In the spring of 1908 he accepted the rectorship of the Church of the Holy Advent, Clinton, Conn., which is his present charge.

He is a member of F. & A. M., Jephtha Lodge, Clinton, Conn. In politics he is an independent Republican.

*Daniel W. Wardwell

Chemist

Died 1878

Daniel Wardwell Wardwell, '72 S., eldest son of Samuel and Mary A. (Stillman) Wardwell, was born in Adams, Jefferson County, N. Y., June 21, 1852,

and died in New Orleans, La., of yellow fever, September 28, 1878, after an illness of about four days.

He entered the school from Rome, N. Y., and immediately after graduating accepted a position as assistant chemist in the coal tar works of Messrs. Page, Kidder & Fletcher of New York City. In the spring of 1877 he entered into a ten years' contract with the Gas Light Company of New Orleans for furnishing its ammoniacal liquor, and erected a factory in that city for the manufacture of sulphate of ammonia, which he had operated with success for about a year, when he was stricken down with the prevalent fever, at the age of twenty-six. He was unmarried.

*Frederick F. Weld

Engineer

Died 1890

Frederick Floyd Weld, '72 S., son of Captain Frederick A. and Mary D. (Washington) Weld, was born in Sag Harbor, L. I., N. Y., on February 19, 1850.

For about a year after graduation he was in the employ of the United States Coast Survey, in the survey of the Delaware River. In August, 1873, he obtained a position as draughtsman and general assistant in the office of the city engineer in New Haven, which position he held until July, 1881, when

he resigned in order to accept a more lucrative place as managing engineer for a contractor on the Pittsburg & Western Railroad, in Pennsylvania. In the summer of 1883, he accepted a position as assistant engineer in charge of the construction of a system of sewers in Waterbury, Conn., and so ably did he conduct the work entrusted to him that when, a few months later, a vacancy occurred in the office of city engineer, he was at once selected for the purpose. This office he held continuously until his death, in Waterbury, on June 28, 1890, in his forty-first year. For several years he had been a prominent and active member of the City Board of Health, but, although much of his thought and time had been given to devising means for checking the ravages of preventable diseases, he was one of the first victims of an epidemic of typhoid fever which visited Waterbury in the summer of 1890.

He was married on December 15, 1874, in New Haven, to Miss Mary V. Crockett, who survives him with their two daughters.

William B. Welling

Banker and Broker

2 Wall Street, New York City

William Brenton Welling, '72 S., was born at Philadelphia, Pa., January 19, 1852, the son of Charles H. and Katharine C. Welling.

Charles Hunt Welling was born October 3, 1816, died February 14, 1892.

Katharine Celia (Greene) Welling was born September 21, 1826, died December 2, 1908.

Welling went to school in Philadelphia and New York. He entered Sheff in 1869, took the Chemical Course for one year, and the Select Course for two years. He was a member of Berzelius.

He was married in New York City on June 7, 1889, to Gertrude Lindsay Howe of New York. Four children: Brenton Welling (born September 8, 1889); Charles Hunt Welling (born November 10, 1890); Lindsay Howe Welling (born November 24, 1892); and Gertrude Nott Welling (born February 10, 1896).

Welling has spent his time since graduation in Wall Street.

In politics he is a Democrat.

*Thomas W. Wright, M. A., C. E., Ph. D.

Professor of Mathematics at Union College

Died 1908

Thomas Wallace Wright, 72 S., was born at Gallo-way, Scotland, August 3, 1842. He was the son of Alexander Wright and Mary (Wallace) Wright, who were married July 1, 1841, and had eight other children, four sons and four daughters: John Wright (died June 22, 1893), Samuel Wright, Jane Wright, Elizabeth

Wright, Margaret Wright (died August 11, 1874), Mary Wright, Alexander Wright (died January 6, 1875), and James Wright (died December 1, 1858).

Alexander Wright (born November 30, 1815, in the Parish of Shirkecolm, Galloway, Scotland, died January 1, 1900, at Galt, Canada) was a millwright, with Goldie McCulloch Company, in Galloway, Scotland. His ancestry was Scotch.

Mary (Wallace) Wright (born December 13, 1821, at Glenluce, Scotland, died August 6, 1901, at Galt, Canada) was of Scotch descent.

Wright prepared for college at the Collegiate Institute in Galt, Canada, and also attended the University of Toronto, receiving the degree of B. A. there in 1863, and being the gold medalist of his Class in mathematics. He entered Sheff in January, 1872, for Senior year.

He was married at Detroit, Mich., on December 31, 1873, to Miss Francis E. Boughton of Schodac, N. Y. (died February 20, 1877, at Detroit, Mich.), a daughter of George Windfield Boughton, a farmer of Novester, Mich. They had two sons: William Howard Wright (born February 10, 1875, at Detroit, Mich., Union College '95, married Miss Beulah DeForest of Schenectady, on June 5, 1900); and Frank Thomas Wright (born February 9, 1877, at Detroit, Mich., Union College '99, married Miss Jessie L. Rising of Portland, Conn., on September 16, 1903). He was married again at Galt, Canada, on June 20, 1879, to Miss Margaret Taylor Hood,

a daughter of Adam Hood, who died March 19, 1902, at the age of eighty-five years. They had three daughters: Jessie Wallace Wright (born February 19, 1882, at Detroit, Mich); Florence Margaret Wright (born June 5, 1885, at Bethlehem, Pa., died March 21, 1907, at Albany, N. Y.); and Marjorie Wright (born September 2, 1888, at Schenectady, N. Y.).

Wright received the degree of M. A. from Toronto University in 1891, and the degree of Ph. D. from Union College in the same year. From 1885 until his death he had been professor of Mathematics in Union College, Schenectady, N. Y. He traveled in Europe in 1891, in 1893, and in 1897. He was a Free Mason, Knight Templar, and a member of the Presbyterian Church. He died September 13, 1908, at his home in Schenectady, N. Y.

He was the author of "Adjustments of Observations" (second edition, 1906), Van Nostrand Company, New York, and of "Elements of Mechanics" (seventh edition, 1906), Van Nostrand Company.

STATISTICS

STATISTICS

COVERING ALL THE GRADUATES OF THE FIRST TWENTY
CLASSES GRADUATED FROM THE SHEFFIELD
SCIENTIFIC SCHOOL, YEARS 1852 TO
1872, INCLUSIVE

In the following pages are given statistical tables covering (1) vital statistics, (2) college fathers and college children, and (3) occupations, for the 270 members of the first twenty classes graduated from Sheff in the years from 1852 to 1872, inclusive. The compilation of tables including all of these early Sheff graduates is made possible from the fact that the biographies of all these graduates were gathered on the same blank form, the lives of the 140 graduates of the classes from 1852 S. to 1867 S. having been published in one volume about a year ago by Gen. W. W. Skiddy, '65 S., while the classes from 1868 S. to 1872 S., inclusive, are published in this volume. In considering these statistics it should be born in mind that the records published in the present volume are much more complete than those of the earlier Sheff classes published in the preceding volume. An effort has been made to neutralize the effect of incomplete returns by considering only the actual number reporting on a given subject in making up the totals from which averages and percentages have been computed.

Care has been taken in all these statistical tables to give in detail the tabulated facts from which any deductions have been made, in order that future statisticians may use these facts for other statistical studies, and in order that any errors in tabulation may be easily detected and rectified. The facts tabulated here should be of the utmost interest and value to all statistical students, covering, as they do, all the graduates of the first two decades

in the history of the second largest department of Yale University. Space in this volume has permitted only the most meager suggestions as to the deductions and indications that may be drawn from these tabulated facts.

VITAL STATISTICS

The following table consists of a list of the 270 members of the Sheff classes from 1852 to 1872, inclusive, with the date of marriage of those reporting marriage, the age at death of the deceased, and, so far as reported, the number of children born to each man, and the number of those in the family of the subject, i.e. the number of the man's brothers and sisters, including in the count himself. The children are subdivided as to boys and girls; when the number of children has been reported without differentiation as to sex the number is given in parenthesis in the "boys" column.

	Name	Date of Marriage	Age at Marriage	Age at Death	Children		Brothers and Sisters (including Subject Himself)
					Boys	Girls	
'52 S	Blake	Dec. 25, 1855	29	84	5	1	
	Brewer	Aug. 14, 1855	30	82			
	"	†Sept. 1, 1868	40		4	1	
	Brush	Dec. 23, 1864	33			3	2
	Craw	Nov. 27, 1879	49	68			
	Shepard	Jan. , 1864	33	64			
	Weld	April 16, 1866	37	58			
	Weyman	†		32			
'53 S	Chessman	March 6, 1854	22	51	2	2	
	Cochrane	Dec. 1, 1857	24	73	1		
	"	†April 19, 1900					
	Henry			74			1
	Jillson	June 15, 1864	34	69		4	
	McRuer	†					
	Palen	Sept. 19, 1860	28	69	3	1	
	Rogers	1857	28	60			
'54 S	Crosby			42			2
	Duvillard	Date unknown		31	1		
	Escallón	Dec. 24, 1856	17		2	3	
	Mosman	Dec. 23, 1861	26		2	2	2
	Parsons	April 1, 1875	43			3	
	Pierson			72			
	Terry	Jan. 8, 1861	30	75	3	2	11
'55 S	Allen	†					
	McGregor	†					
	More	April 16, 1857	28	68	1	1	
	St. John	†					
	Vengohechea	†					

	Name	Date of Marriage	Age at Marriage	Age at Death	Children		Brothers and Sisters (Including Subject Himself)
					Boys	Girls	
'55 S	Walcott	1857	26	69	2	1	
	Wilcox	Dec. 16, 1880	47		1		4
'56 S	Boisblanc	1872	37	56	1	1	
	Brinton	Jan. 1, 1863	31		2	4	5
	Bronson	May 30, 1861	24		3	1	
	"	†Date unknown				1	
	"	§Date unknown			3	1	
	Candee	Jan. 15, 1865	33	72			
	"	†Jan. 8, 1884					
	DeForest			54			
	Fuller	Sept. 20, 1859	25	70			
	Lyle	†					
	Morehouse	Oct. 15, 1861	26		2	1	5
	Plata	Date unknown		54			
	Seely	Sept. 1, 1858	30		2	2	8
	"	†June 7, 1867					
	Watson	†					
'57 S	Williams	March 10, 1868	31	71	4	1	2
	Curtis	†					
	Gilbert	†					
	Harger	Date unknown		41	1		
	Herrick	†					
	Kent	May 5, 1864	26		6	1	
	Martin	†					
	Meade			59			
	Pike	Dec. 23, 1863	30		5		4
'58 S	Richards	Nov. 1, 1859	23	47	(4)		
	Arosmena	†					
	Barker	Aug. 15, 1861	26		1	4	3
	Blake	†					
	Gay	Oct. 21, 1862	28			4	
	Hodges	†					
	King	Dec. 22, 1863	24	58	1	2	
	Kittredge	Oct. 20, 1864	31	74	3	3	4
	Pombo	Date unknown		64	4	4	
	Rockwell	June 20, 1865	31	69	1	3	
	Sackett	†		25			
	Sparrow	April 9, 1867	35	45	1	1	
'59 S	Wheeler	Oct. 12, 1866	32				2
	Booth	Date unknown		64	1	2	
	Dubois	Dec. 1, 1880	40		(5)		
	Dwight	Nov. 17, 1859	26	73	4	2	
	Harriott	Nov. 17, 1864	29		4	1	3
	Porter	Aug. 24, 1864	25	70	3	3	7
	Seely	May 23, 1876	38	70			3
	Smith	Feb. 2, 1865	25	49	1	2	
	Twining	March 23, 1877	42				3
'60 S	Coddington	Date unknown		51	(4)		
	Hearn	Oct. 3, 1882	40	61			
	Hutchinson	Jan. , 1887	47	48			
	Manice	Nov. 4, 1863	25	39	(4)		
	Rogers						2
	Sheafer	June 7, 1864	27	71	2		9
'61 S	Allen	Dec. 17, 1861	25		3		

	Name	Date of Marriage	Age at Marriage	Age at Death	Children		Brothers and Sisters (Including Subject Himself)
					Boys	Girls	
'61 S	Bissell	May 20, 1875	40		3		6
	Burrage	Nov. 30, 1854	24	69	3		
	Cifuentes	+					
	Martinez	+					
	Moore	Sept. , 1871	29	53			
	Raymond	+					
	Sands	+	50				
'62 S	Bunce	Feb. 16, 1865	26		1	1	5
	Griñan	+					
	King			60			1
	Mead	+					
	Parsons	Oct. 25, 1865	21			1	8
	Ward	March 15, 1876	34	57			
'63 S	Goodyear	+		52			
	Hague	Nov. 14, 1893	53		(2)		
	Manning	Oct. 19, 1870	26		2	1	
	"	†Nov. 18, 1880					
	Megia	+					
'64 S	Bill			57			
	Brownfield	Dec. 7, 1867	23		3		
	Burton	Dec. 10, 1901	55	58			
	Carpenter	May 31, 1868	27		1		3
	Daggett	June 23, 1874	29		2		3
	Farnsworth	Nov. 12, 1878	36				
	Roffe	March 23, 1876	32			2	
	Tiffany	Oct. 11, 1864	23		3	3	8
	Van Harlingen	Aug. 31, 1882	37		2		5
'65 S	Ford	+					
	Glenny	July 10, 1871	26		1	1	
	"	†July 15, 1902					
	Holt	Nov. 18, 1868	22		1		7
	Leavens	Feb. 19, 1874	29		1	3	4
	Massey	+		56			
	Mitchell	Date unknown		45	1	1	
	Palmer			48			
	Robinson	1882	36				
	Rogers	Sept. 26, 1896	51				
	Skeel	+		31			5
	Skiddy	April , 1867	22			2	
	Stone	Aug. 18, 1881	37		2	1	
	Thomas	June 18, 1873	31		3	2	
	Throckmorton	+		38			
	Van Harlingen	Oct. 15, 1873	30		2	6	4
'66 S	Coit	Nov. 3, 1870	25	61	1+(3)		3
	Crooke	Oct. 29, 1874	34			2	9
	Ebell	Sept. , 1874	34	37			
	Gauss	+					
	Linsly	1877	33	54	1		
	McAlister	Oct. 19, 1874	28	28			
	Macdonald	March 1, 1892	48			1	6
	Matthias	May 15, 1867		46		2	
'67 S	Barbour	Date unknown					
	"	† 1892		58	1		
	Beeson	Date unknown		51	(2)		

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	Name	Date of Marriage	Age at Marriage	Age at Death		Children		Brothers and Sisters (including Subject Himself)
						Boys	Girls	
'67 S	Caldwell	Sept. 14, 1871	24			2	6	14
	Chittenden							
	Ferry			64	26			
	Grove, P. H.	July 7, 1873	28	30		1		
	Grove, R. M.	Date unknown		50		2		
	Hubbard	Sept. 30, 1868	22		2	3		9
	Mixter	Aug. 26, 1875	29		1	1		1
	Niles	Dec. 31, 1869	31	72				
	Sheffield	1883	39	51	1			
	Smith	June 29, 1882	39					
	Wadsworth	July 2, 1867	21			1		
	Wells	Dec. 23, 1869	24		4	2		6
	Whittelsey	Sept. 27, 1871	28	60		2		
	Wood	Date unknown		52	1			
'68 S	Andrew	July 28, 1881	38		4	2		3
	Austin	June 7, 1881	35		3			13
	Bailey	†						
	Barbour	Jan. 10, 1880	34		1	1		7
	Beach	June 16, 1875	27		2	1		
	Blackstone	About 1869	22	51	1			
	"	†Date unknown						
	Bristol	July 18, 1903	60	67				6
	Clark	Oct. 30, 1873	26		3	1		6
	Dudley	May 6, 1873	27	50	2	2		
	Eddy	Jan. 4, 1870	26		1	4		3
	Evans							
	Finney	Sept. 5, 1872	29					15
	Fowler	†						
	Guthrie	March 2, 1882	35	53				
	Hersey	April 12, 1875	28	61				7
	Jackson	Nov. 21, 1871	25	61	1	1		4
	McKell	Jan. 18, 1881	35	54	2			13
	Needham							5
	Noonan	†						
	Parshall	July 24, 1884	39			2		8
	Redfield	Oct. 31, 1872	28			2		4
Renick	Dec. 29, 1874	27		2			5	
Rockwell			42					
Stone			24					
Swift	Date unknown		47		1			
Williams	Oct. 18, 1871	24		3	1		12	
'69 S	Abbot	Date unknown		42		2		
	Belknap	Dec. 2, 1874	25		1	4		4
	"	†Feb. 21, 1894						
	Bissell							6
	Brinley	April 24, 1877	30		1	3		5
	Buck	April, 1872	22		1			5
	Chidsey	Date unknown			4	1		
	Clarke			Unknown				
	Curtis	Oct. 29, 1873	23		2	1		3
	DuBois	June 23, 1883	34					7
	Folsom	Sept. 9, 1893	45					3
	Hill							7
	Hornblower	June 29, 1893	45	60				

	Name	Date of Marriage	Age at Marriage	Age at Death	Children		Brothers and Sisters (Including Subject Himself)
					Boys	Girls	
'69 S	Hulst	May 12, 1875			3	2	
	Johnson	Nov. 8, 1871		29	1		
	Kendall	†					
	Koon	Date unknown		39	(3)		
	Lowe	Dec. 23, 1871	22		2	3	5
	Perry	Date unknown			1	1	4
	"	†Aug. 29, 1883	34				
	Pope	March 13, 1879	30				4
	"	†Sept. 12, 1882			4	1	
	Skinner	Jan. 7, 1872	30		1		1
	Van Rensselaer	Dec. 29, 1879	32		1	1	4
	Weed	May 13, 1873	27		3	1	
	White						
	Whitman	Oct. 6, 1871	23			1	4
	Wight	Jan. 2, 1879	31		2	2	
Willits	Sept. 25, 1872	26		2	2	3	
'70 S	Abbott	Sept. 24, 1877	31		1	1	6
	Bailey	June 21, 1888	40		3	1	
	Ballard	April 24, 1878	28		3	5	5
	Bennett	May 9, 1872	27		2	1	
	Brandegee	May 29, 1889	46				9
	Brinsmade	Dec. 28, 1870	25		2	3	3
	Brooks	Sept. 28, 1876	25			3	11
	"	†Dec. 15, 1891	40				
	Calvert	Nov. 8, 1877	28				2
	Churchill	Date unknown		33	(3)		
	Clark	May 4, 1875	26		(3)	2	
	Conkling	April 11, 1896	46			3	4
	Grant	April 29, 1879	30		3	1	4
	Hastings	June 28, 1878	30			1	
	Hinds			77			
Hoes	Feb. 16, 1885	36					
Hopson	Oct. 15, 1881	33			3	4	
Humphrey	July, 1870	22			1		
"	†1892			1			
Littleton	March 4, 1884	36			1	2	
Lowe			37				
Marks	1874	25			2		
Rice	May 12, 1879	30		1			
Roberts	July 3, 1903	35		1		7	
Roseberry	Oct. 20, 1877	28		2	2	11	
Stanton	†						
Stone	July 1, 1885	38		2	2	7	
Warren	Nov. 20, 1873	27		2	2	8	
Watson	May 9, 1871	24		1	1		
'71 S	Andrews	Oct. 13, 1881	29		2	1	3
	"	†June 15, 1910					
	Bacon						8
	Burt	May 6, 1875	27		2	3	3
	"	†Jan. 23, 1895			1	1	
	Bush	Jan. 8, 1880	30	54	1	1	4
	Chittenden	Dec. 25, 1876	27		1	2	2
	Davenport	June 1, 1897	48	54	1		2
	Dickson	Feb. 17, 1874	24		1	1	4

	Name	Date of Marriage	Age at Marriage	Age at Death		Children		Brothers and Sisters (including Subject Himself)
						Boys	Girls	
'71 S	Durand	Jan. 15, 1885	34					2
	"	†June 17, 1890						
	"	§Aug. , 1908						
	Dwinelle	June 10, 1885	38					5
	Ferry	Oct. 17, 1877	25				2	3
	Greene	†						
	Griswold, C. W.	Oct. 9, 1872	20	26	(3)			
	Griswold, J. W.	1878	28	52	1	2		
	"	† 1885						
	Judson	Feb. 24, 1900	49				1	3
	Keasbey	Jan. 14, 1885	35				1	8
	Klein	Dec. 30, 1879	30				1	1
	Lobdell	April 17, 1878	28				3	2
	Mather	Feb. 13, 1875	25				4	2
	Merriman	June 5, 1875	27				4	2
	"	†May 16, 1891						
	"	§Date unknown						
	Moore	May 20, 1875	25				1	1
	Pierpont				23			
	Powell				23			
Quigley	Oct. 28, 1875	27	49					
Sanford	Oct. 20, 1892	43						
Sargent	Dec. 4, 1879	28				3	2	
Terry	Feb. 23, 1872	22	58			2		
Ziegler	April 18, 1876	26						
'72 S	Abbott	Feb. 26, 1877	27				4	3
	Bogart	April 18, 1888	36	52			2	
	Edwards	Oct. 19, 1881	30				2	1
	Gawthrop	Feb. 20, 1879	29				1	3
	Greene	†						
	Hawes				34			
	Hering	Nov. 23, 1881	31					2
	Johnson	June , 1899	49	51			1	
	Kelly	Oct. 2, 1876	28				1	3
	Knapp				36			
	Lindsley	1883	30	41				
	Maxson	Dec. 26, 1877	26				2	1
	Maxwell	April 25, 1882	30				3	1
	Miller	Aug. 14, 1870	25	51			1	1
	Morse	Feb. , 1887		37				
	Nevins	†		25				
	Prudden							
	Russell	Dec. 21, 1882	31				3	2
	Tibbals	Nov. 27, 1847					1	1
	Wardwell				26			
Weld	Dec. 15, 1874	24	40				2	
Welling	June 7, 1889	37				3	1	
Wright	Dec. 31, 1873	31	66			2		
"	†June 20, 1879						3	

†Second marriage.

§Third marriage.

‡No information concerning marriage given.

RECAPITULATION

Number married	205, or 88 per cent of the number reporting.
Number unmarried (living)	8
Number unmarried (deceased)	20
Number with facts of marriage and family unreported	37
	<hr/>
	270
Average age at first marriage	30.92 years.
Average age at death of those unmarried	44 years.
Number of sons born	257
Number of daughters born	245
Number of children (sex unreported) born	36
	<hr/>
Total number of children reported	538
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Number of married men reporting facts concerning children	182
Total number of children reported	538
Average number of children per family	3(-.04)
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Number of men reporting facts concerning brothers and sisters	113
Total number of brothers and sisters, including subject, reported	588
Average number of children per family, in this previous generation	5.20

The above table shows an exceptionally large (88) per cent of the reported men in the Class as married. The number of children born also indicates that these early Sheff classes have more than reproduced themselves, though the average size of the families of these graduates is only a little more than half as large as that of the families of their fathers. Statistics of the Class of 1858, Yale College, with a report from 103 men, give at forty years after graduation 79, or 77 per cent, of the men married, with a total of 234 children, an average family for the married men of just under 3, practically the same as in these early Sheff classes. The Class of 1879, Yale College, in 1905 had out of a class of 137 some 112 or 81.8 per cent of the Class married, and to this class had been born in 1905 138 sons (approximately the same number of male children as the

number of males originally composing the class) and 117 daughters, a total of 255 children, an average family of 2.28 children for each of the married men.

PARENTS WHO WERE COLLEGE GRADUATES

In this list are given the names of the fathers (and one mother) of the members of the first twenty Sheff classes who were college graduates. Honorary college degrees are not mentioned in this table except in three cases where Yale gave honorary degrees to men holding no college degrees in course. The names of the parents are followed by the college from which they graduated and the year of their graduation.

Parent	Institution	Year of Graduation
E. Blake	New York Medical School	
L. Weld	Yale College	1818
S. C. Henry	University of Pennsylvania	1811
A. Terry	Yale College	1821
H. Bronson	Yale Medical	1827
J. De Forest	Yale College	1826
"	Yale Medical	1829
R. C. Wheeler	Yale College	1816
H. G. Dwight	Hamilton	1825
A. C. Twining	Yale College	1820
A. Hague	Hamilton	1826
O. E. Daggett	Yale College	1828
F. Farnsworth	Harvard	1821
J. Linsly	Yale College	1826
"	College of Physicians and Surgeons, N.Y.	1829
A. Caldwell	Washington	1836
G. Mixter	Yale College	1836
J. Wadsworth	Yale College	1841
J. D. Wilcox	Yale, Honorary	1855
W. B. Bristol	Yale College	1825
H. Eddy	Yale College	1832
"	Yale Medical	1851
Mrs. S. H. (Torrey) Eddy	Mount Holyoke Seminary	1839
J. A. Rockwell	Yale College	1822
G. Brinley	Yale, Honorary	1868
H. A. DuBois	Columbia	1827
"	Columbia, M. D.	1830
J. G. Lowe	Miami	1837
O. H. Perry	Yale, Honorary	1875
J. J. Abbott	Dartmouth	1839
A. J. Ballard	Transylvania	
E. Brandegee	Yale College	1833
"	Yale Medical	1838
P. M. Hastings	Hamilton	1838
H. M. Humphrey	Rush Medical	
B. S. Roberts	West Point	1835

Parent	Institution	Year of Graduation
H. Andrews, Sr.	Yale College	1841
J. R. Davenport	Yale College	1830
H. S. Dickson	Union	1839
"	Princeton Theological Seminary	1841
J. W. Dwinelle	Hamilton	1833
F. J. Judson	Yale College	1824
"	Yale Medical	1829
A. O. Keasbey	Yale College	1843
J. J. Abbott	Dartmouth	1839
W. Edwards	Yale College	1820
C. A. Lindsley	Yale Medical	1852
G. P. Prudden	Yale College	1835
"	Yale Theological	1839
W. H. Russell	Yale College	1833

RECAPITULATION

Total number of men in these first twenty Sheff classes, reported at all as to parentage . . .	235
Number who have reported fathers as college graduates	38
Additional number who have reported fathers as holders of Yale honorary degrees	3
Additional number who have reported mothers as college graduates	1

These fathers have received degrees from the following institutions, among others:

Yale College	20
Yale Medical	6
Yale Theological	1
Yale Honorary	3
Total Yale degrees	30
Hamilton	4
Columbia	3
Dartmouth	2
Harvard	1
Princeton Theological	1

The mother graduated from Mount Holyoke College.

The total number of individual colleges or universities represented with one or more degrees held by the fathers and the mother is 15.

CHILDREN WHO ARE COLLEGE GRADUATES

In this table are listed the children of the members of the first twenty Sheff classes who are college graduates, with the name of the institution from which they graduated and the year in which their degree was received. The children are listed in the order in which their parents' names appear in these Sheff records (i.e. in the order of their graduation and alphabetically within a given Class). In the case of daughters "Miss" is prefixed to the name and the maiden name (father's surname) given in all cases.

Name of Child	Institution	Year of Graduation
F. H. Blake	Yale, S. S. S.	1882
J. A. Blake	Yale College	1885
"	Yale, S. S. S.	1886
T. W. Blake	Columbia, M. D.	1889
"	Yale, S. S. S.	1890
H. Brewer	Yale, S. S. S.	1894
A. Brewer	Yale, S. S. S.	1897
C. Brewer	Yale College	1905
"	Yale, S. S. S.	1908
Daughter of Palen	Wellesley	1888
Son of Palen	Haverford	1892
Son of Palen	Hahnemann Medical	1895
Posada y Escallón	St. Charles College, London	
P. A. Mosman	Massachusetts Institute of Technology	1887
C. T. Mosman	Lehigh	1892
A. H. Terry	Yale College	1898
"	Yale, S. S. S.	1899
Daughter of Terry	Smith	1896
L. T. Wilcox	Yale, S. S. S.	1907
C. F. Brinton	Haverford	1902
"	Haverford, M. A.	1906
Miss A Seely	Syracuse	
Miss S. G. Seely	Middlebury	1891
H. H. Seely	Middlebury	1894
"	University of Vermont, M. D.	1898
L. M. Seely	Middlebury	1895
Miss C. T. Barker	Wellesley, B. A.	
L. E. Sparrow	Yale, S. S. S.	1891
F. H. Booth	Yale College	1898
"	Columbia, M. D.	1902
B. H. Dwight	Yale College	1895
Daughter of Dwight	Vassar	1898
J. S. Porter	Yale College	1899
D. W. Porter	Yale College	1908
P. Sheaffer	Yale, S. S. S.	1889
Miss F. M. Sheaffer	Ogontz	1894
J. A. Allen	Yale, S. S. S.	1883
G. F. Allen	Yale, S. S. S.	1885
J. H. Bissell	Princeton	1899
Miss M. Parsons	Columbia	1895
"	Columbia, M. A.	1897

Name of Child	Institution	Year of Graduation
E. Howe (stepson)	Yale College	1898
W. B. Howe (stepson)	Yale College	1901
R. F. Manning	Yale, S. S. S.	1892
J. P. Manning	Yale, S. S. S.	1904
H. S. Manning, Jr.	Yale, S. S. S.	1907
J. M. Van Harlingen	Yale, S. S. S.	1907
W. Glenn	Yale, S. S. S.	1894
"	Johns Hopkins, M. D.	1902
Miss F. R. Leavens	Smith	1900
D. H. Leavens	Yale College	1909
J. L. Stone	Harvard	1903
F. L. Stone	Yale, S. S. S.	1905
W. S. Thomas	Rensselaer, C. E.	1896
"	Columbia School of Mines, E. M.	1898
J. H. Thomas	Yale College	1902
F. F. Thomas, Jr.	University of California	1908
W. W. Linsly	Yale College	1901
W. G. Caldwell	Yale, S. S. S.	1895
R. B. Hubbard	Kenyon, Ph. B.	1891
G. W. Mixter	Yale, S. S. S.	1895
Miss M. E. Wells	Wesleyan, B. S.	1893
E. A. Wells	Yale College	1897
"	Johns Hopkins, M. D.	1901
R. O. Wells	Yale College	1901
"	Harvard, LL. B.	1904
D. B. Wells	Yale College	1908
A. Wells	Yale, S. S. S.	1907
Miss S. S. Whittelsey	Radcliffe	1894
"	Yale, Ph. D.	1898
I. A. Andrew	Yale, S. S. S.	1903
A. M. Andrew	Yale, S. S. S.	1906
A. Austin	Colorado School of Mines	1905
S. Y. Beach	Yale, S. S. S.	1898
L. Blackstone	Yale College	1898
H. S. Clark	Yale, S. S. S.	1899
Miss R. E. Eddy	Vassar	1893
H. T. Eddy	University of Minnesota	1895
Miss E. M. Eddy	University of Minnesota	1898
Miss B. E. Eddy	University of Minnesota	1910
Miss H. F. Eddy	University of Minnesota	1910
Miss M. C. Jackson	Smith	1895
J. P. Jackson	Amherst	1897
"	Massachusetts Institute of Technology	1899
D. M. McKell	West Point	1904
W. S. McKell	Yale, S. S. S.	Ex-1905
"	Leland Stanford, Jr., University	1908
Miss A. W. Redfield	University of Minnesota	
	Student for two years	
Miss M. J. Redfield	University of Minnesota	1898
R. H. Williams	Cornell	1895
"	Yale, M. A.	1903
A. S. Williams	Cornell, M. E.	1901
Miss E. Belknap	Vassar	1898
Miss M. Belknap	Vassar	1903
W. B. Belknap	Yale College	1908
C. E. Brinley	Yale College	1900
"	Yale, S. S. S.	1901

Name of Child	Institution	Year of Graduation
F. T. Buck	Columbia	1894
A. D. Chidsey, Jr.	Lafayette	
T. M. Chidsey	Lafayette	
Miss C. Curtis	Wellesley	1900
C. P. Hulst	Yale College	1900
C. H. Lowe	Gambier	1890
J. G. Lowe	Yale College	1907
Miss C. S. Perry	College at Haverhill, Mass	
O. H. Perry	Yale, S. S. S.	1899
T. H. Skinner	Massachusetts Institute of Technology	1892
R. W. Wight	Massachusetts Institute of Technology	1901
Miss I. C. Wight	Smith	1903
"	Simmons	1904
M. G. Wight	Massachusetts Institute of Technology	1906
Miss G. R. Wight	Smith	1908
Miss E. E. Willits	Swarthmore	
Miss R. B. Abbott	Wellesley	1904
W. Bennett	Yale, S. S. S.	1897
D. E. Brinsmade	Yale, S. S. S.	1896
W. S. Brinsmade	Yale, S. S. S.	1908
Miss C. G. Brooks	Pratt Institute	
Miss F. W. Clark	Bryn Mawr	1902
Miss E. F. Hopson	Vassar	1905
L. H. Burt	Trinity	1900
H. W. Chittenden	Yale, S. S. S.	1903
"	Yale, Forest	1904
F. S. Dickson, Jr.	Yale, S. S. S.	1903
Miss E. L. Ferry	Mount Holyoke	1905
Son of Griswold	Williams	Undergraduate
A. W. Klein	Lehigh	1899
Miss E. W. Lobdell	Smith	1902
G. G. Lobdell, 2d	Yale, S. S. S.	1908
W. L. Mather	Yale, S. S. S.	1896
R. Mather	Yale, S. S. S.	1897
Miss M. Mather	Vassar	1903
U. B. Mather	Yale, S. S. S.	1904
T. W. Mather	Yale, S. S. S.	1910
T. Merriman	Lehigh	1897
Miss L. Merriman	Bryn Mawr	1899
Miss A. P. Merriman	Swarthmore	1904
R. M. Merriman	Lehigh	1906
N. N. Merriman	Lehigh	1905
E. C. Moore	Yale College	1899
Z. Sargent	Yale College	1903
M. Sargent	Yale College	1905
J. Terry	Yale, S. S. S.	1905
E. F. Abbott	Bowdoin	1903
Miss K. L. Edwards	University of Washington	1905
Miss D. W. Hering	Vassar	1904
Miss H. W. Hering	Vassar	1908
H. C. Kelly	Yale College	1903
Miss M. F. Kelly	Mount Holyoke	1908
F. T. Maxson	University of Pennsylvania, Medical	1902
L. H. Maxson	Boston University	1906
"	University of Pennsylvania, Medical	1910
Miss M. D. Maxwell	Wellesley	1907
H. Z. Maxwell	Yale College	1912

Name of Child	Institution	Year of Graduation
T. H. Russell, Jr.	Yale, S. S. S.	1906
"	Yale, Medical	1910
W. H. Russell	Yale College	1912
Miss K. W. Tibbals	Wellesley	1899
"	University of Pennsylvania, Ph. D.	1904
C. A. Tibbals, Jr.	University of Wisconsin	1904
"	University of Wisconsin, M. A.	1906
"	University of Wisconsin, Ph. D.	1908
W. H. Wright	Union	1895
F. T. Wright	Union	1899

RECAPITULATION

Total number of men of the first twenty Sheff classes reported at all as to children	232
Total number of children reported born to these men	538
Total number of boys reported as college graduates	100
Total number of girls reported as college graduates	40
Total number of children reported as college graduates (Holding a total of 161 reported degrees.)	140

These children have received degrees from the following colleges and universities, among others:

Yale College	26
Yale, Sheff	39
Yale Forest	1
Yale Medical	1
Yale Graduate	2
Total Yale degrees	69
Vassar	8
Smith	6
Wellesley	6
Columbia	6
University of Minnesota	6
Massachusetts Institute of Technology	5
Lehigh	5
Harvard	2
Princeton	1
Total number of individual colleges and universities represented with one or more degrees	43

The cumulative tradition of college education in families is shown by the above tables. Whereas only 39 parents of the members of these classes were college graduates, 140 of their

children are reported to have completed a college course, with doubtless more to follow. The growth of education for women in America among families with college fathers is shown in a marked degree. While only one mother of these early Sheff men was reported as a college graduate, forty of their daughters have graduated at colleges; and in number of degrees awarded to children of these men, second to Yale alone, come three girls' colleges, Vassar, Smith and Wellesley. The preference of these graduates of early Sheff classes for Sheff over any other department of Yale is indicated by the fact that 39 of their sons graduated at Sheff to 26 at Yale College, although the numbers graduating from Yale College have been approximately twice as great as at Sheff during the two or three decades when these sons were in attendance. The indication is that the records of college graduation is not nearly so complete in the classes from 1852 S. to 1867 S. as in those classes recorded in this volume; since only 57 children of those earlier classes, recorded in the preceding volume, are given as college graduates, while 83 children are so given for the members of the classes recorded in this volume, although there were more men recorded in the earlier volume than in this one. If the previous records had been as complete as those published in this volume the number of children with college degrees might easily be swelled to more than twice 83 or to a total of 166 or 170.

OCCUPATIONS

In the following paragraphs the members of the first twenty Sheff Classes are listed according to the occupations in which they are at present engaged, or in which they were engaged before their death or retirement, or in which they were engaged during the greater part of their life. Men who have engaged in one or more occupations are included in parenthesis under their earlier or minor occupations. These names in parenthesis are not included in the totals given for the various occupations nor in the table of undergraduate courses and occupations following. In these paragraphs the name of each man is followed by the numerals of his Sheff Class and by the abbreviated names of his undergraduate courses. The abbreviations used are the following: the Biological Course, *Bio*; the Engineering Courses, *Eng* (subdivided, where known, into *CE*, *ME*, and *MnE*, referring to Civil, Mechanical or Mining Engineering); the course in Chemistry, *Chem*; the course in Natural History, *NH*; the course in Mining and Metallurgy, *Met*; the

Select Course, *Sel*; when the undergraduate course is unknown a dash follows the Class numerals.

On page 250 is printed a table of the number of men from each undergraduate course who are now engaged in each of the eleven occupations, and the members from each course who have engaged in no business or whose occupations are unreported.

AGRICULTURE:—Weld, '52 S., *Chem*; Brinton, '56 S., *Chem*; Bronson, '56 S., *CE*; Pike, '57 S., *CE*; (Gay, '58 S., *CE*); Andrew, '68 S., *Mn E*; Parshall, '68 S., *Sel*; Clarke, '70 S., *Eng*; Dwinelle, '71 S., *Chem*; Mather, '71 S., *CE*.

Total 9.

ART:—Fuller, '56 S., *CE*; Parsons, '62 S., *Chem*; Linsly, '66 S., *Chem*; Wadsworth, '67 S., —; Hornblower, '69 S., *Eng*; (Lindsley, '72 S., *Eng*.)

Total 5.

EDUCATION:—Brewer, '52 S., *Chem*; Brush, '52 S., *Chem*; Shepard, '52 S., *Chem*; Jillson, '53 S., *Chem*; (Rafael E. y Escallón, '54 S., *CE*); Parsons, '54 S., *CE*; More, '55 S., *CE*; Boisblanc, '56 S., *CE*; De Forest, '56 S., *CE*; (Plata, '56 S., *CE*); (Seely, '56 S., *Chem*); (Barker, '58 S., *Chem*); Blake, '58 S., *Chem*; (Rockwell, '58 S., *Chem*); Sackett, '58 S., *CE*; (Dwight, '59 S., *Chem*); Burton, '64 S., *Chem*; (Van Harlingen, '64 S., *Chem*); Barbour, '67 S., *CE*; Mixter, '67 S., *Chem*; (Niles, '67 S., *NH*); (Smith, '67 S., *NH*); Austin, '68 S., *ME*; Eddy, '68 S., *CE*; Williams, '68 S., *NH*; Curtis, '69 S., *Mn E*; DuBois, '69 S., *CE*; Skinner, '69 S., *CE*; Hastings, '70 S., *Eng*; Stone, '70 S., *ME*; Bacon, '71 S., *Sel*; Klein, '71 S., *Eng*; Hawes, '72 S., *Chem*; Hering, '72 S., *CE*; Lindsley, '72 S., *Eng*; (Prudden, '72 S., *Bio*); Wright, '72 S., *Eng*.

Total 27.

ENGINEERING (all branches):—Cochrane, '53 S., *CE*; Henry, '53 S., *CE*; Rogers, '53 S., *CE*; Crosby, '54 S., *CE*; Mosman, '54 S., *CE*; Rafael E. y Escallón, '54 S., *CE*; (Candee, '56 S., *CE*); Martin, '57 S., *CE*; (Meade, '57 S., *CE*); (Richards, '57 S., *CE*); Sheaffer, '60 S., *CE*; Bissell, '61 S., *CE*; (Burrage, '61 S., *CE*); Bunce, '62 S., *CE*; Ward, '62 S., *CE*; Daggett, '64 S., *Mn E*; Massey, '65 S., *Sel*; Robinson, '65 S., *CE*; Skeel, '65 S., *CE*; (Stone, '65 S., *CE*); Thomas, '65 S., *Chem*; Throckmorton, '65 S., *CE*; Van Harlingen, '65 S., *CE*; (Barbour, '67 S., *CE*); Chittenden, '67 S., *CE*; Ferry, '67 S., *CE*; (Andrew, '68 S., *Mn E*); Barbour, '68 S., *CE*; (Hersey, '68 S., *Sel*); (Needham, '68 S., *CE*); Redfield, '68 S., *CE*; (Rockwell, '68 S., *CE*); (Bissell, '69 S., *CE*); Clarke, '69 S., *Eng*; Hill, '69 S., *CE*; Koon, '69 S., *Eng*; Van Rensselaer, '69 S., *CE*; Wight, '69 S., *CE*; Abbott, '70 S., *Eng*; (Brandegge, '70 S., *CE*); Brooks, '70 S., *CE*; Calvert, '70 S., *CE*; Grant, '70 S., *CE*; Lowe, '70 S., *Eng*; Marks, '70 S., *Eng*; Roberts, '70 S., *Eng*; Andrews, '71 S., *CE*; Burt, '71 S., *Eng*; Chittenden, '71 S., *Eng*; Ferry, '71 S., *CE*; C. W. Griswold, '71 S., *CE*; Judson, '71 S., *Eng*; Merriman, '71 S., *Eng*; Pierpont, '71 S., *Eng*; (Quigley, '71 S., *Eng*); Terry, '71 S., *CE*; Abbott, '72 S., *Sel*; Bogart, '72 S., *Eng*; Kelly, '72 S., *CE*; Maxson, '72 S., *CE*; Weld, '72 S., *Eng*.

Total 48.

FINANCE:—Palen, '53 S., *Chem*; Wilcox, '55 S., *CE*; Candee, '56 S., *CE*; Richards, '57 S., *CE*; Gay, '58 S., *CE*; Carpenter, '64 S., *Sel*; Tiffany, '64 S., *CE*; Rogers, '65 S., *Sel*; Coit, '66 S., *Sel*; Wells, '67 S., *CE*; Bristol, '68 S., *Chem*; Renick, '68 S., *Sel*; Abbot, '69 S., *Sel*; Chidsey, '69 S., *Sel*; Johnson, '69 S., *Sel*; Perry, '69 S., *Chem*; Willits, '69 S., *Sel*; Bailey, '70 S., *Sel*; (Hoes, '70 S., *Sel*); Rice, '70 S., *CE*; Warren, '70 S., *CE*; Dickson, '71 S., *Sel*; Durand, '71 S., *Sel*; Knapp, '72 S., *Sel*; Welling, '72 S., *Chem*.

Total 24.

GOVERNMENT (Including army and navy):—Duvillard, '54 S., *CE*; Seely, '59 S., *Chem*; Evans, '68 S., *Sel*; Hersey, '68 S., *Sel*; Watson, '70 S., *ME*; Bush, '71 S., —.

Total 6.

LAW:—Plata, '56 S., *CE*; King, '58 S., *CE*; (Harriott, '59 S., *CE*); Manice, '60 S., *Chem*; Palmer, '65 S., *CE*; Caldwell, '67 S., *CE*; Clark, '68 S., *Sel*; (Churchill, '70 S., *Sel*); Conkling, '70 S., *Met*; Keasbey, '71 S., *Sel*; Edwards, '72 S., *CE*; Maxwell, '72 S., *Sel*; Morse, '72 S., —.

Total 11.

LITERARY:—(Carpenter, '64 S., *Sel*); McAlister, '66 S., *Sel*; Hinds, '70 S., *Sel*.

Total 2.

MEDICINE:—(Palen, '53 S., *Chem*); Kittredge, '58 S., *CE*; Sparrow, '58 S., *Chem*; Booth, '59 S., *CE*; Dubois, '59 S., *Chem*; Twining, '59 S., *Chem*; Hearn, '60 S., *Chem*; Hutchinson, '60 S., *Chem*; Farnsworth, '64 S., *Sel*; Van Harlingen, '64 S., *Chem*; Wood, '67 S., *Chem*; Swift, '68 S., *Sel*; Buck, '69 S., *Chem*; Russell, '72 S., *Bio*.

Total 13.

MERCANTILE:—Chessman, '53 S., *CE*; Pierson, '54 S., *CE*; Terry, '54 S., *CE*; Walcott, '55 S., *CE*; Morehouse, '56 S., *CE*; Williams, '56 S., *CE*; Harger, '57 S., *CE*; Kent, '57 S., *CE*; Meade, '57 S., *CE*; Arosmena, '58 S., *CE*; Pombo, '58 S., *CE*; Rockwell, '58 S., *Chem*; Wheeler, '58 S., *Chem*; Harriott, '59 S., *CE*; Porter, '59 S., *CE*; Smith, '59 S., *CE*; Manning, '63 S., *Met*; Bill, '64 S., *Sel*; Ford, '65 S., —; Glenny, '65 S., *Sel*; Holt, '65 S., *Sel*; Leavens, '65 S., *Sel*; Mitchell, '65 S., —; Skiddy, '65 S., *Chem*; Stone, '65 S., *CE*; Matthias, '66 S., *Chem*; Beeson, '67 S., *Sel*; P. H. Grove, '67 S., *Sel*; R. M. Grove, '67 S., *Sel*; Hubbard, '67 S., *Sel*; Whittelsey, '67 S., *Chem*; Blackstone, '68 S., *Sel*; (Bristol, '68 S., *Chem*); Finney, '68 S., *CE*; Guthrie, '68 S., *Sel*; McKell, '68 S., *Sel*; Needham, '68 S., *CE*; Rockwell, '68 S., *CE*; Belknap, '69 S., *Sel*; Bissell, '69 S., *CE*; Brinley, '69 S., *Chem*; Lowe, '69 S., *Sel*; Pope, '69 S., *CE*; Weed, '69 S., *Sel*; Whitman, '69 S., *Sel*; Ballard, '70 S., *Sel*; Bennett, '70 S., *CE*; Brinsmade, '70 S., *Eng*; Hoes, '70 S., *Sel*; Hopson, '70 S., *Sel*; Littleton, '70 S., *CE*; Roseberry, '70 S., *MnE*; (Warren, '70 S., *CE*); Davenport, '71 S., *Chem*; J. W. Griswold, '71 S., *Sel*; Lobdell, '71 S., *Chem*; Moore, '71 S., *CE*; Quigley, '71 S., *Eng*; Sanford, '71 S., *CE*; Sargent, '71 S., *Chem*; Ziegler, '71 S., *Chem*; Gawthrop, '72 S., *Eng*; Johnson, '72 S., *Sel*.

Total 61.

MERCANTILE SCIENTIFIC:—Craw, '52 S., *Chem*; Weyman, '52 S., *Chem*; Moore, '61 S., *Chem*; Croke, '66 S., *Met*; Macdonald, '66 S., *Chem*; Beach, '68 S., *Sel*; (Clark, '68 S., *Sel*); Dudley, '68 S., *Sel*; Hulst, '69 S., *MnE*; Churchill, '70 S., *Sel*; Humphrey, '70 S., *Chem*; Wardwell, '72 S., *Sel*.

Total 11.

MINISTRY:—Jackson, '68 S., *Sel*; Tibbals, '72 S., *Sel*.

Total 2.

SCIENTIFIC:—Blake, '52 S., *Chem*; (Brewer, '52 S., *Chem*); (Brush, '52 S., *Chem*); Seely, '56 S., *Chem*; Barker, '58 S., *Chem*; (Rockwell, '58 S., *Chem*); Dwight, '59 S., *Chem*; Rogers, '60 S., *CE*; Allen, '61 S., *Chem*; Burrage, '61 S., *CE*; King, '62 S., *Chem*; Goodyear, '63 S., *CE*; Hague, '63 S., *Chem*; Ebell, '66 S., *NH*; (Matthias, '66 S., *Chem*); Niles, '67 S., *NH*; Smith, '67 S., *NH*; Brandegeee, '70 S., *CE*; (Conkling, '70 S., *Met*); Prudden, '72 S., *Bio*.

Total 15.

No BUSINESS:—Sheffield, '67 S., —; Folsom, '69 S., *Chem*; Nevins, '72 S., *CE*.

Total 3.

OCCUPATION UNREPORTED:—McRuer, '53 S., *CE*; Allen, '55 S., *CE*; McGregor, '55 S., *CE*; St. John, '55 S., *CE*; Vengohechea, '55 S., *CE*; Lyle, '56 S., *CE*; Watson, '56 S., *Chem*; Curtis, '57 S., *CE*; Gilbert, '57 S., *CE*; Herrick, '57 S., *CE*; Hodges, '58 S., *CE*; Coddington, '60 S., *CE*; Cifuentes, '61 S., *CE*; Martinez, '61 S., *CE*; Raymond, '61 S., *CE*; Sands, '61 S., *CE*; Grinan, '62 S., *CE*; Mead, '62 S., *CE*; Megia, '63 S., *CE*; Brownfield, '64 S., *CE*; Roffe, '64 S., *CE*; Gauss, '66 S., *CE*; Bailey, '68 S., *CE*; Fowler, '68 S., —; Noonan, '68 S., *CE*; Stone, '68 S., *Sel*; Kendall, '69 S., *Eng*; White, '69 S., *Sel*; Stanton, '70 S., *Eng*; Greene, '71 S., *Eng*; Powell, '71 S., *Eng*; Greene, '72 S., *Chem*; Miller, '72 S., *Sel*.

Total 33.

TABLE SHOWING NUMBER OF MEN FROM EACH UNDERGRADUATE COURSE WHO HAVE GONE INTO THE VARIOUS OCCUPATIONS

Course in Sheffield	PRESENT OCCUPATIONS													Total for Each Course		
	Agriculture	Art	Education	Engineering	Finance	Government	Law	Literature	Medicine	Mercantile	Mercantile Scientific	Theology	Scientific		No Business Occupation Unreported	
Engineering.....	5	2	18	45	8	2	5		2	28	1		4	1	27	148
Select	1		1	2	12	2	3	2	2	20	4	2			3	54
Chemistry	3	2	8	1	4	1	1		8	10	5		7	1	2	53
Biology									1				1			2
Metallurgy.....							1		1	1						3
Natural History....													3			3
Course Unreported...		1				1	1		2					1	1	7
Total for Each Occupation	9	5	27	48	24	6	11	2	13	61	11	2	15	3	33	270

The table comparing undergraduate careers with the occupations followed in after life may form the basis of a number of most interesting considerations: such as the ability of a boy to choose his career before finishing college; the influence of college courses on future occupations, etc., etc. Striking facts shown by the table are that out of 148 taking engineering only 45, not quite a third, have followed engineering careers. The large number (27) of engineering students who have not reported their biographies for these records probably indicate the pioneer life of the engineer of a half century ago, spent in the newly opened West and often lost to knowledge and record. Of the 53 students of the Chemistry Course 31, about three fifths, pursued careers of science, medicine or education related to their undergraduate training. In general the members of the courses in Chemistry, Biology and Natural History followed careers which seem to indicate that they chose their undergraduate courses with an eye to their future occupations; while those in the engineering and metallurgy courses in general did not. The students of the Select Course at least seemed to know what subjects they did not want to take up, since of the 54 men in these courses only two have followed engineering and two medicine, while none have gone into pure science. These men have avoided scientific careers as carefully as they avoided technical scientific studies in college.

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