

he distinguished himself "not at all because of my scholarship, but in my last year won first prize in elocution, and was major of the School Battalion." He spent the four years with us, of which he says, "I never won any distinction as a student or as an athlete, although I tried to make every athletic team, I believe, including the cricket team. I did learn to play poker, and I did graduate by a narrow margin."

On July 1, 1894, he became employed by A. R. & C. W. Whittier as a real estate broker. On Jan. 1, 1900, he became a member of the succeeding firm of C. W. Whittier & Bro., and still carries on.

"I have enjoyed frequent trips to Europe, Caribbean Sea, and California. I have never sought political prominence. I have always enjoyed immensely all forms of athletics, as well as shooting. I have killed many salmon in Quebec waters, and many partridges and woodcock in New Hampshire and Maine woods.

"I have been much interested in collecting first editions of old English sporting books, as well as many of the best known writers including Kipling, and also portrait engravings of prominent Americans, old glassware and early Wedgewood, and antique American furniture. I purchased a farm in Canton, Mass., in 1916, and have been interested in its development. I now have a herd of about fifty pure-bred Guernseys, and run a milk route."

Whittier joined Battery A of M.V.M. some time in 1899, and continued a member of that organization for about nine years. He served as private, corporal, sergeant, and lieutenant. He went to F.A.C.O.T.S. at Camp Zachary Taylor, Louisville, Ky., on Oct. 24, 1918, to train and study for a commission in the Field Artillery. He was honorably discharged on Nov. 29, 1918, because of termination of emergency. He has been a trustee of the Suffolk Savings Bank for many years, and in 1937 was made a director of the Merchants National Bank of Boston.

He is a member of the Union Club of Boston, The Country Club, the Harvard Club of Boston, the Harvard Club of New York, the Hoosic-Whisick Club of Canton, and the Milton Club.

✱ FREDERICK WILLIAM WHYTE

FREDERICK WILLIAM WHYTE was born at St. Louis, Mo., June 30, 1872, the son of James Graham and Victoria (Duchouquette) Whyte. He died at Hot Springs, Ark., April 8, 1931.

Whyte was a member of our Class in the Freshman and Sophomore years. Afterwards he studied at the Yale Law School, received his LL.B. degree in 1894, and then practised in St. Louis, living for some time in Kirkwood. (X, 150)

JOHN ANDREAS WIDTSOE

Pioneer scientific investigator of the arts of dry-farming and irrigation; eminent professor of chemistry and agriculture and college president; a Mormon Apostle (and the only Apostle in '94) and missionary for his faith; sympathetic with the daily round and the souls of common men.

JOHN ANDREAS WIDTSOE, who is living in Salt Lake City, Utah (1425 Sigsbee Ave.), was born Jan. 31, 1872, at the Island of Frøyen, Norway. He is the son of John Andersen and Anna Karine (Gaarden) Widtsøe. He came to Harvard from Brigham Young College at Logan, Utah, and received an S.B. *summa cum laude* in 1894, with highest honors in chemistry. He was a member of the Boylston Chemical Club.

"Unexpectedly, and almost accidentally," he reports, "I found myself upon graduation in the employ of the Utah State Agricultural College as chemist to the Experiment Station, and in charge of the Department of Chemistry. I became enamored of the problems of the land-grant colleges, which deal with the education of the common man and the development of natural resources for human good. In helping to solve these problems I have found much joy, and these many years they have continued to engage my attention. In the solution of them I see a happy future for mankind.

"After two years in Europe for advanced study, when I became director of the State Agricultural Experiment Station, I tackled some of these problems seriously. I had travelled widely over western arid and semi-arid America, and knew that the stream-flow, when fully conserved, would irrigate only a small fraction of the available land.

"To what extent could the low rainfall be made to produce crops? This question was subjected to scientific study. It was found that on certain soils, under quite a low rainfall, if proper practices were followed, crops could be produced profitably. With Prof. L. A. Merrill, my young colleague, long since dead, I published the first bulletin or treatise on dry-farming. Our experimental work led to discoveries that began to place the art of dry-farming on a scientific basis. I sup-

pose that time was right, for interest in our work became world-wide. Men from almost every nation called at Logan, where the station is located, to inspect our work. Young men trained by us in the field were employed not only in the United States, but in many foreign countries. My book on dry-farming, after ten years of experimentation, was translated promptly into French, Italian, and Spanish, for the three countries represented had arid lands on which water could not be brought. There sprung into existence the International Dry Farming Congress, to which delegates were sent from many foreign countries. With the congress I was associated steadily until its proper demise, when the work no longer needed artificial support. I was the president of the congress when we met in Canada about 1912. In Tunis a magazine was published, *Le Dry-Farming*. Millions of acres in America and other countries are now redeemed. There are now many villages and happy homes on the desert, which this work, done by myself and my colleagues, helped to bring about.

"Paralleled with this work on dry-farming, scientific experiments on irrigation were conducted. The fundamental problem was the same — the relationship among soil, water, and plants. While irrigation is an age-old art, it had not been subjected to serious experimental study until we undertook the work in 1900. I secured State and Governmental aid for dry-farming experimental stations, and also for irrigation experimental stations to demonstrate the correctness of our findings. Several new laws were discovered, which helped to move irrigation from a rule of thumb affair to something based upon scientific truth. Some of the findings were revolutionary. After some years of experimentation, I wrote a book on the subject, which also received a very good reception in irrigated districts. So I suppose I may claim to be a pioneer worker in the field of placing irrigation on a scientific basis, and a pioneer scientific investigator of the possibilities of growing crops without irrigation under a low rainfall.

"Since nearly two-thirds of the earth's land surface is arid or semi-arid, these investigations in irrigation and dry-farming became of interest to many countries. My books on these subjects were translated into several languages.

"Such work, which became my professional love, was interfered with by calls into administrative positions. I became in succession director of the State Agricultural Experiment Station, director of the agricultural department of the Brigham Young University, president

of the Utah State Agricultural College, and president of the University of Utah. Naturally, my scientific efforts were lessened by the volume of executive duties.

"In educational administration I directed my energies towards the education of the common man who must engage in the necessary pursuits of life. I fear that if education be not shaped and made over to meet the needs of all classes of men, our democracy will be in danger of defeat. I am a believer in research for the increase of all knowledge, and the reduction of all sound knowledge to an educational program which, in disciplining the mind, will furnish a vision of man's true possessions to all men, however humble their daily toil may be. Perhaps we may call it practical education. Knowledge has real value only when applied to human needs. The world's safety lies in dignifying the daily tasks of the common man, who in the end always wins. The lives of my students convince me of the sanity of such educational thinking.

"In the midst of my university work came a call to serve the Church as a member of the Council of the Twelve. Thereby hangs a tale.

"I felt early that life would be short of the best unless reasonable answers could be found to the eternal questions, Whence? Why? Where? My search was not helped by College. James and Royce confused me. The faculties of the sciences were remote from such questions. Most help was given by Josiah Parsons Cooke, instructor of Eliot, illustrious scientist, sound philosopher, believer in God, and great human being. When the battle was over, I had found the best answers, and most complete life philosophy, in the teachings of the so-called Mormon Church. Thenceforth I lived my religion faithfully, and have found much joy in so doing.

"Therefore it was easy for me to accept the call of the Church, which separated me in middle life from my beloved educational and research activities. I should then be better able to pass on to others that which I had found to be good. It was possible for me to do the required work, since the Church does not maintain a trained or paid ministry, but expects every member to be able to explain and defend its doctrines.

"Since 1921, in the ministry of the Church, I have travelled constantly and far and wide — six years in Europe and adjoining countries as the president of the European Mission, two in Washington

on a Federal committee, one in Los Angeles as a lecturer on the program of the Mormon Church in the University of Southern California, and innumerable shorter periods have been spent in other places.

"My church work has given me many satisfactions. In spirit it has not been greatly different from my previous educational work. I have had less hesitation in pointing out that proper conduct is man's duty among his fellows and in the worship of God. Since the Church deals with the practical as well as the spiritual needs of the people, my earlier training has been found of value.

"I have written a score or more of books, two score or more of pamphlets, numerous magazine and newspaper articles, (see Bibliography in Report VII), among which are *Arid-Farming, or Dry-Farming*, 1902, Utah State Agricultural Experimental Station; *Dry-Farming*, 1911, Macmillan Co.; *Principles of Irrigation Practice*, 1914, Macmillan Co.; *Western Agriculture*, 1918, Webb Publishing Co.; *Federal Reclamation by Irrigation*, 1924, United States Government Printing Office; *Success on Irrigation Projects*, 1928, John Wiley and Sons; *Discourses of Brigham Young*, 1925, Deseret Book Co.; *A Rational Theology*, 1915, Deseret Book Co.; *In the Gospel Net*, 1941, The Improvement Era; *Evidences and Reconciliations*, 1943, The Bookcraft Co.

"I have held many responsible positions on State commissions, and in a variety of other organizations, and have been associated with several business enterprises.

"It has been an exceedingly busy life, but one of daily joy, for it has always been directed towards the welfare of others. Of course, I have had and have many interests beyond those mentioned here.

"The multitudinous duties of the years have been lightened by the intelligent understanding and loving help of my wife. She and I and our children have lived a happy family life. We have had to meet the sorrows as well as the joys of life, but we have travelled the day long in a sunlit land."

Widtsoe has been a member of several State Boards, wartime organizations, business institutions, and church organizations. He received an A.M. and a PH.D., *magna cum laude*, at the University of Göttingen in 1899, and an LL.D. at the Utah Agricultural College in 1914 and at the University of Utah in 1921.

He married Leah Eudora Dungord, June 1, 1898, at Salt Lake

City, Utah. They have two daughters: Anna Gaarden, born April 2, 1899; and Leah Eudora, born July 4, 1912. Anna married Lewis J. Wallace, Oct. 7, 1926, at Salt Lake City. They have three children: John Widtsoe Wallace, born Aug. 8, 1927; Joanne Widtsoe Wallace, born Oct. 10, 1928; and Margaret Widtsoe Wallace, born Aug. 21, 1931. Leah married G. Homer Durham, June 20, 1936, at Salt Lake City. They have two children: Carolyn Durham, born May 31, 1937; and Leah Eudora Durham (popularly known as Doralee), born April 5, 1939.

Widtsoe's brother, Osborne J. P. Widtsoe, received an A.M. at Harvard in 1905.

FREDERICK WILDES

Wool merchant and investment broker until 1928; now in retirement, with not the best of health, looking back on our undergraduate days with an eye to their delights and their defects, and on the world today, which offers a less attractive spectacle.

FREDERICK WILDES is living in Wellesley Hills, Mass. (9 Oakland Street). He was born at Boston, Mass., Dec. 13, 1872, the son of Frank Waldo Wildes, '64, and Helen Delia Hilger. He came to Harvard from Cutler's School in Newton, Mass., and took an A.B. in 1894. From 1895 to 1907 he was in the wool business, and from 1907 to 1928, when he retired, he dealt in investment securities. From 1907 to 1912 he was manager of the western Massachusetts branch office of Gavet & Porter of Boston at Northampton. He then returned to Boston to accept a position with Turner, Tucker & Co., bankers, dealing principally in mill stocks. In 1914 he joined E. W. Clark & Co., bankers and large owners of public service corporations throughout the United States.

"My life has been quite uneventful," he writes, "but I have fond recollections of undergraduate years—the club table at Memorial, the athletic contests, especially football, the trip to Springfield with plenty of fun in spite of the monotonous regularity of defeats. I have real regrets at neglected opportunities, not recognized at the time. Therefore I am strongly in favor of careful supervision of Freshman studies, and a real effort to determine the tastes, capabilities, and talents of the individual in order to start him on the right track towards a satisfactory, successful, and worth-while life.