NECROLOGY

Will E. Edington, DePauw University

Charles Frederick Adams

Atherton, Missouri — Jefferson City, Missouri
April 4, 1877 — January 21, 1950

Dr. Charles Frederick Adams, who was Director of the Laboratories of the Indiana State Board of Health from 1927 to 1934 and who left Indiana to accept a similar position in his home state, Missouri, passed away on January 21, 1950. Just six months before his death he had been made acting Director of the Division of Health for Missouri.

Dr. Adams was born at Atherton, Missouri, and after completing the work offered by the public schools he entered the University of Missouri and was graduated in 1897, at the age of twenty, with the B.S. degree in Agriculture. Following his admission to the Kansas City Medical College he became an instructor, in 1899, in both that college and the Dental College, which position he held for four years, in the meantime receiving the M.D. degree in 1902, and the A.M. degree from the University of Kansas the year following. His major fields of study were entomology and pathology. He later spent the year 1904-1905 as a graduate assistant in Zoology at the University of Chicago.

In 1905 he was appointed Professor of Entomology at the University of Arkansas and three years later he became Dean of the College of Agriculture and Director of the Experimental Station. He resigned in 1913 and returned to his home at Atherton to take up farming and dairying, which occupied him for the next twelve years. He returned to Chicago in 1926 for further study and the year following he came to Indiana as Director of Laboratories of the State Board of Health.

Dr. Adams began his active career in Public Health when he was fifty years of age and he was exceptionally well prepared both by training and experience to do most effective work in that field. As an entomologist he was interested in work with mosquitoes and flies, and his studies in both agriculture and medicine made him particularly effective as a pathologist. He served as pathologist at St. Mary's Hospital in Jefferson City. His research studies were in clinical pathology, medical entomology, and taxonomy of insects.

He was a Diplomate of both the American Board of Pathology and the American Board of Preventive Medicine and Public Health. He was a Fellow of the Entomological Society and the Society of Clinical Pathology, and he held memberships in the American Association for the Advancement of Science, the American Medical Society, and a number of other societies in entomology, pathology and medicine. He was also a member of the St. Louis and Missouri Academies of Science. He

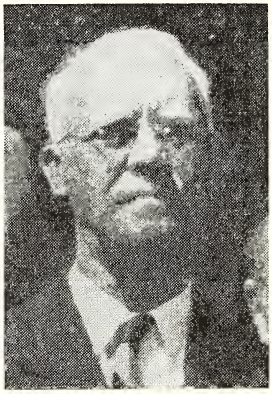
served as secretary of the Missouri Public Health Association for many years.

Dr. Adams joined the Indiana Academy of Science the same year he came to Indiana and he was made a Fellow in 1933. While, of course, distance prevented his active participation in its work, he nevertheless maintained his interest in it until his death. Dr. Adams will be remembered for his unselfish devotion to the welfare of his fellowmen and he joins that great group of public servants who have made life happier and more abundant for all.

CHARLES AUGUST BEHRENS

Grand Rapids, Michigan — Holland, Michigan
January 5, 1885 — June 22, 1950

Charles August Behrens was the first of three past presidents of the Indiana Academy of Science to pass away during 1950, and his sudden death came as a distinct shock to his Purdue associates and his numerous friends over the State. He had just completed his thirty-sixth year of service at Purdue and, following Commencement on the preceding Sunday, as was his custom, he had gone to his summer home near Holland, Michigan, where he was stricken on Thursday and passed away that night.



He was born in Grand Rapids, Michigan, January 5, 1885, both his parents being natives of Germany. Following his graduation from the Grand Rapids schools he entered the University of Michigan in 1904. He spent ten years at the University of Michigan and received the B.S. and M.S. degrees in 1909 and 1910, respectively. During the last four years he served as an instructor in bacteriology in the Medical School and also completed his work for the Ph.D. degree which was conferred upon him in 1913.

Dr. Behrens came to Purdue in 1914 as Assistant Professor of Bacteriology and was promoted the next year to Associate Professor, and in 1917 to Professor. He spent the year 1918 as a First Lieutenant, U. S. Army, in the Sanitary Corps, and was stationed at Yale University.

His principal research was done in the fields of Protozoology, Serology, Immunology and Virology, and in his last years he was much interested in the History of Science. "His work on the growth of trypanasomes pioneered research in this area of tropical medicine. He made valuable contributions to our knowledge of viruses, especially in methods of purifying and concentrating the rabic virus." He published numerous papers in various scientific journals, among them seventeen papers and eight joint papers in the *Proceedings of the Indiana Academy of Science*, the last appearing in Volume 58 for 1948.

He was a Fellow of the American Association for the Advancement of Science, and a member of the Society of American Bacteriologists and was president of its Indiana Branch in 1949. He also held membership in the Indiana Audubon Society and Sigma Xi, and he was an honorary member of the Tippecanoe County Medical Association. Dr. Behrens became a member of the Indiana Academy of Science in 1916, was made a Fellow in 1917, and was its President in 1923. During the years he had served on numerous committees of the Academy, last being Chairman of the History of Science Section for 1947 and Chairman of the Nominations Committee for Officers for 1950.

Dr. Behrens was an only child and, following the death of his father, he bestowed every care possible on his mother who in her later years became an invalid. He never married and with the death of his mother he devoted himself wholeheartedly to charitable and philanthropic work. He made contributions of collections of Victorian Furniture to the Grand Rapids Furniture Museum, and paintings to the Ryerson Library of that same city. He established Camp Anna Behrens, Michigan, on his lake property near Holland, as a memorial to his mother, and gave it to the Kent County Girl Scouts, whom he served as a counselor, and as honorary president of the Kent County Girl Scout Council.

He possessed a most charming personality with a keen, ready wit and a fund of amusing stories. He loved outdoor life and possessed the enthusiasm of a naturalist. He was a fine teacher and conveyed his own enthusiasm to his students. He believed in youth and served as a wise counselor to those who enjoyed his friendship and confidence.

In the passing of Charles August Behrens Purdue University has lost an outstanding teacher and scientist, the State has lost a fine influential citizen, and the Indiana Academy of Science has lost one of its most active, faithful and valuable members.

RAYMOND KELLEY CASSELL

Denver, Colorado — Bloomington, Indiana
January 6, 1905 — July 17, 1950

It is with keen regret that one records the death of a fellow scientist who is in the height of his powers or shows promise of making a considerable contribution in his chosen field. Such a man was Raymond Kelley Cassell who was stricken with cancer and died at the early age of forty-five.

He was born in Denver, Colorado, early became an orphan, and did not receive the sympathetic guidance that allowed him to find himself until relatively late in life. After spending a period in the Army he finally entered the University of Michigan where he received the A.B. degree in 1938 and the A.M. degree in 1939. He was appointed a teaching fellow from 1940 to 1943 and then an instructor and he finally completed his work for the Ph.D. degree in geography in 1946. That fall he came to Indiana University as an instructor in geography and helped in the formulation of the initial program for the newly made Department of Geography at Indiana University. He was promoted to Assistant Professor in 1947, and despite his illness, of which he became aware two years before his death, he carried on his teaching work most successfully and was also able to do some research.

Dr. Cassell was a Fellow of the Michigan Academy of Science and he gave promise of becoming an active and valuable member of the Indiana Academy of Science. He had published research on the regional geography of Northeastern Mexico, and on the problems of industrial plant location. Also he presented a paper before the Indiana Academy of Science on "The Electric Light and Power Industry in Indiana," which was published in the *Proceedings* for 1948. During the summers of 1948 and 1949 he worked for the Bureau of Business Research for the University of Texas.

He came to Indiana University highly recommended by those who knew him best at the University of Michigan as both a fine teacher competent to teach in any branch of his chosen field and a scientist with prospects. Quiet and reserved, but courageous and determined, and thoughtful of others to the end, he left an indelible impress on his colleagues, students and friends.

BENJAMIN D. HITZ

Indianapolis, Indiana — Indianapolis, Indiana
May 20, 1890 — August 14, 1949

There are a few fields of science in which the non-professional scientist may still get considerable enjoyment and frequently make valuable contributions. In the Academy, archaeology and the history of science seem to be of this type for a number of members who are active in these fields pursue them as hobbies. Benjamin D. Hitz, a prominent business man of Indianapolis, became interested in archaeology and joined the Academy in 1935 so that he could meet others who were interested in Indian lore and prehistoric mounds. And he continued his interest in the Academy and this phase of its work until his death on August 14, 1949.

Mr. Hitz was born in Indianapolis and spent his life there. He graduated from Shortridge High School in 1908 and then entered Indiana University and received the A.B. degree in 1912. Following his graduation from Indiana University he became a member of the firm of George Hitz & Co., commission merchants, serving as secretary and

treasurer until his retirement early in 1949. He was also a Director of the Fletcher Trust Company for many years.

He was active in civic affairs in Indianapolis, having served for many years on the Board of Directors of the Indianapolis Children's Museum and on the Board of the Smith Memorial Library of the Indiana Historical Society. He was a vice-president of Crown Hill Cemetery Association and served on its Board of Managers more than ten years.

Mr. Hitz was a collector of and an authority on rare books and manuscripts, and it was through his work that the Smith Memorial Library now possesses one of the finest collections of original source material on the development of the Northwest Territory and its division into states.

He served as a Captain in the Sanitary Corps, U. S. Army, in France in World War I, and after the war he wrote an account of the activity of his unit: *History of Base Hospital No. 32.*

The Academy has need of more active members of Mr. Hitz's background and interests, and it is to be regretted that Mr. Hitz was not better known to the general Academy membership.

CLYDE ARNETT MALOTT

Atlanta, Indiana — Bloomington, Indiana
September 10, 1887 — August 26, 1950

With the death of Clyde Arnett Malott the Indiana Academy of Science lost one of its most active and productive scientists. He joined the Academy in 1914 and during the years since then very few of the General Meetings of the Academy have been held at which Dr. Malott did not present one or more papers and he published a total of thirty-two papers and three joint papers in the *Proceedings*, the last appearing in 1948. His last appearance before the Academy was in 1949, and he had a paper prepared for the 1950 Meeting which was read at that meeting by Dr. McGrain, one of his former students.

Clyde A. Malott was descended from a pioneer Indiana family and was born in Hamilton County, but at the age of ten he went with his

family to Jennings County where he completed his public school education. He entered Indiana University and thereafter his career was bound up entirely with that of the University. He received the A.B. degree in 1913, the A.M. in 1915 and the Ph.D. in 1919. He became a tutor in geology at the University in 1915, was made an instructor the next year, and an Assistant Professor of Geology in 1918. Two years later he was promoted to Associate Professor and in 1924 he was made Professor of Geology, which position he held until his retirement in 1947. From 1941 to 1945 he served as acting Chairman of the Department of Geology and Geography. Dr. Malott was absent from the University when he spent the first semester of 1929-1930 as acting Professor of Geology at Williams College. He also spent several summers as geologist for several gas and oil companies, and he was consultant for the Sun Oil Company from 1938 to 1940. He served at various times on Indiana, Illinois and Oklahoma geological surveys.

He was a Fellow of the American Association for the Advancement of Science and a member of the National Speleological Society, the Geological Society of America, Sigma Xi and Phi Beta Kappa. When the honorary geological fraternity, Sigma Gamma Epsilon, was installed at Indiana University in 1926, he was its first Faculty Sponsor and he remained a Sponsor until his retirement. He was elected a Fellow in the Indiana Academy of Science in 1925, and was Vice-President in 1937 and President in 1944.

Besides his numerous publications in the *Proceedings* of the Academy, he was author of a number of other scientific papers and reports, chiefly on Indiana geology. Probably no other man knew as much about Indiana caves, underground streams and general geology as did Dr. Malott. He received the Academy prize in 1948 for the most distinguished paper in geology published in the *Proceedings* during the preceding five years. He was also author of *Physiography of Indiana*, which appeared in 1922.

Dr. Malott was an excellent and inspiring teacher and was at his best in field work. He was an authority on caverns and underground drainage, and his major interests were in physiography, stratigraphy, and petroleum geology. While not posing as a paleontologist he nevertheless took many trips hunting fossils and he was ever on the lookout for interesting specimens. His enthusiasm for field work he was able to convey to his students. The Fourth Annual Indiana Geologic Field Conference in dedicating its *Guide Book* stated: "This guide book is respectfully dedicated to Dr. Clyde A. Malott, a friend and inspiring teacher who has devoted most of his professional career to Indiana geology and has enjoyed teaching it to others."

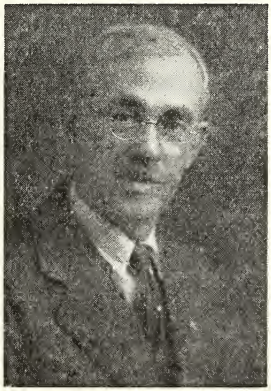
Clyde A. Malott was distinctly an Indiana product. He loved and received his inspiration and sustenance from its hills and streams. And in turn he gave unstintedly of himself to train Indiana youth to appreciate and treasure their geologic legacies. His memory will ever be associated with the caverns and streams which he loved and taught others to love.

FRANK BERTRAM WADE

New Bedford, Massachusetts — Indianapolis, Indiana
July 8, 1875 — October 3, 1950

It is given to few high school teachers to be listed in *Who's Who in America,* but Frank Bertram Wade was no ordinary high school teacher. His vocation was chemistry and he was an excellent chemist, a recognized author of chemical textbooks, and an inspiring teacher. But it was his hobby that brought him national and international recognition for he became an authority on precious stones before he reached the age of forty-five.

Frank B. Wade was born at New Bedford, Massachusetts, on July 8, 1875. Following his graduation from New Bedford High School he was made an assistant teacher of science in the High School and he remained there until he entered Wesleyan University, in Connecticut, from which he graduated in 1901 with special honors in chemistry. That fall he went to Lewis Institute, in Chicago, as an instructor in chemistry, and in 1903 he came to Shortridge High School, in Indianapolis, as a teacher of chemistry. He was made Head of the Department of Chemistry in 1910 and he remained Head until his retirement in 1949, after forty-six years of service at Shortridge.



He was a most interesting and entertaining conversationalist with a keen wit and a ready story to illustrate his points. It was a delightful experience to hear him relate his varied experiences as a gem hunter. His hobby began when he was a Sophomore at Wesleyan when he had to miss a football game in order to take an all-day geological hike. The class that day discovered an old mine of precious stones and young Wade found a small garnet and several tourmalines which he kept through all the years. He had sought for and found precious stones in the Atlantic coastal waters, along Lake Superior, the Oregon Coast, and in San Diego County, California, as well as in Indiana creeks where some gold and stones were deposited in glacial times. He once found a fine tourmaline at the edge of a snowbank at an altitude of 11,000 feet

in Rocky Mountain National Park. He had his own home workshop where he had cut and polished hundreds of stones of all kinds except diamonds.

His first textbook, of which he was a joint author, was *Foundations of Chemistry*, which appeared in 1914, and this was followed by a *Teachers' Hand Book* in 1915, and *Laboratory Exercises in Chemistry* in 1917. His first work on precious stones, *Diamonds—A Study of the Factors that Govern their Value*, was published in 1916, and this was followed by *A Textbook on Precious Stones*, in 1917, *How to Buy Diamonds Wisely*, in 1921, and *Fundamental Facts in Regard to Industrial Diamond Setting*, in 1923. He published articles in various professional journals and was the author of thirteen papers and two memorials in the *Proceedings*, the last appearing in 1942. However, he presented papers to the Academy in 1946 and 1948 on the properties of turquoise, of which abstracts were published in the *Proceedings*. For many years he was Editor of the Chemistry Section of *School Science and Mathematics*.

He was a member of the American Chemical Society and twice president of its Indiana Section, and a member of its committee on chemical education and its Senate of Chemical Education. Long a member of the Central Association of Science and Mathematics Teachers, he was its president in 1922-1923. He was also a member of the American Association for the Advancement of Science, and Phi Beta Kappa, and a Scottish Rite Mason. He joined the Indiana Academy of Science in 1903, was made a Fellow in 1914, and was its President in 1927. He served the Academy as Press Secretary for ten years, and at the time of his death he was a Trustee of the Academy Foundation.

Just preceding his retirement from Shortridge, Saturday, March 26, 1949, was designated as Frank Wade Day and he was honored with a dinner at which Shortridge alumni, Indianapolis citizens, and representatives of various scientific organizations paid him honor.

Frank B. Wade lived a full life and a good life. He inspired and influenced thousands of Shortridge High School students. "Modest, friendly, kindly, and helpful, he has left the mark of his profession and his character on Indianapolis generations." And he was one of the most influential and highly respected members of the Indiana Academy of Science whose counsel and wisdom will be greatly missed.

ALFRED THEODOR WIANCKO

Sparrow Lake, Ontario, Canada — Eustis, Florida
October 16, 1872 — December 10, 1949

Alfred Theodor Wiancko, who passed away on December 10, 1949, had served Purdue University forty years at the time of his retirement in 1943. He was born on a farm near Sparrow Lake, Ontario, and spent his boyhood and early manhood there. He entered the Ontario Agricultural College and was graduated in 1895 with the B.S. degree in Agriculture. Following several years of managing a large farm in

Minnesota, he returned in 1898 to the Ontario Agricultural College as assistant librarian and instructor in German. In 1901 he became experimentalist on the 12,000 acre farm of the Standard Cattle Company in Nebraska, and in October of that year he accepted a position at the University of Nebraska as instructor in Agriculture and Assistant Agriculturist in its Experiment Station. He came to Purdue University in 1903 as Associate Professor of Agriculture and two years later he was made Head of the newly formed Department of Soils and Crops. From 1905 to 1907 he had charge of the first instructional work at Purdue in Farm Management, Agricultural Engineering, Agricultural Chemistry, and Agricultural Botany. The Department of Soils and Crops in time became the Department of Agronomy with Professor Wiancko as Chief. He relinquished his teaching duties in 1916 and thereafter devoted his time to experimental and research work. He retired in 1943 as Professor Emeritus of Agronomy, but continued his research for a time and then went to Eustis, Florida, where he passed away.

Professor Wiancko's outstanding work was done in corn breeding, selection, and judging, and the study of soils with respect to their fertility deficiences. He began breeding and selection experiments in 1903 and by 1906 he had eighteen breeding plots over the state on farms of members of the Corn Growers Association and other interested farmers. He worked out the Indiana corn score card in 1904 and this standardized corn judging. He was judge or served on a judging committee at the State corn shows for many years. He also became a member of the corn judging committee of the international grain show in 1919 and continued until his retirement. He early discovered the wide variation in soil fertility and the necessity of studying the soil of any particular farm before giving advice as to its fertilizer needs in order to produce the best crops. The first simplified fertilizer recommendations were developed in 1918 which, in his own words, "led to a more intelligent use of fertilizer, a stepping up of the plant food content, and a great reduction in the number of analyses that cluttered the fertilizer market." In 1904 he started the systematic breeding of small grains and developed several new varieties of wheat and soy beans especially adapted to Indiana soil.

He was very thorough and careful in his work and was recognized for his high ideals and standards throughout his many years of judging. He was a fine teacher who believed that students in agriculture should have a broad general training.

Professor Wiancko was a Fellow of the American Society of Agronomy and long a member of the American Soil Survey Association, later named the American Society of Soil Science, and its president in 1922. He also held membership in the American Association for the Advancement of Science, the International Society of Soil Science, Sigma Xi, Alpha Zeta and Ceres. He joined the Indiana Academy of Science in 1909 and became a Fellow in 1935. He occasionally presented papers before the Academy.

He was the author of numerous articles in scientific journals, and

of many bulletins and pamphlets issued by the Purdue Experiment Station.

In 1942 the Indiana Corn Growers Association together with his many other friends presented his oil portrait to Purdue University. This was in recognition of the great agricultural and economic benefits derived by the State through the work of Professor Wiancko. Indeed through his great pioneering Indiana has attained renown for its agriculture and Purdue has also received world wide recognition.