

NECROLOGY

WILL E. EDINGTON, DePauw University

CLARENCE EVERETT BAKER

Champaign, Illinois
November 1, 1896

Lafayette, Indiana
June 2, 1953

Horticulture has played an important part in the agricultural history of Indiana. The first Indiana Horticultural Society was founded in 1842, perished after a few years, and was succeeded, in 1860, by the Indiana Pomological Society which four years later became the second Indiana Horticultural Society. Following the founding of Purdue one of the very first appointments was that of John Hussey who served as Professor of Botany and Horticulture in 1874-75. In 1884 James Troop, Professor of Horticulture from 1884 to 1912, was one of the two teachers of agriculture on the Purdue staff. In the early days horticulture was chiefly concerned with the propagation, improvement and diseases of fruits and vegetables, but modern life is now also concerned with their preservation, storage and transportation. Among the leaders in research on this latter problem was Clarence Everett Baker who devoted almost a third of a century to horticultural research at Purdue.

Clarence Everett Baker was born at Champaign, Illinois, on November 1, 1896, received his early education there, and came to Purdue in 1920, immediately after receiving his B.S. degree at the University of Illinois, as an Assistant in Horticulture in the Experiment Station, and at the time of his death on June 2, 1953, he was an Associate in Horticulture with the rank of Associate Professor, in the Agricultural Experiment Station. While carrying on his research he earned the M.S. degree in 1929 and the Ph.D. in 1936, both at Purdue.

Dr. Baker's research, published mostly in *Agricultural Station Bulletins*, was concerned with pomology, pruning of orchards and management of orchard soils, cold storage and keeping qualities of fruit, and types of farm storage for fruits and vegetables. He also had received nation-wide recognition for his study on the storage and keeping qualities of coffee. He also did some teaching on the storage of agricultural crops.

He was a member of the American Society for Horticultural Science, the Indiana Horticultural Society and Sigma Xi, and for the past four years he had been on the scientific advisory council of the Refrigeration Research Foundation, one of whose meetings he attended just a month before his death. He joined the Indiana Academy of Science in 1949.

Dr. Baker was an excellent citizen who was active in civic projects and church work, having served on the board of stewards of the Methodist church for many years. The fruit growers of our state and nation owe him much for his outstanding service in research.

GEORGE W. BENTON

Albion, New York
November 15, 1862

Appleton, Wisconsin
June 23, 1952

At the time of the Fiftieth Annual Meeting of the Academy in November, 1934, fifteen of the Charter Members of the Academy were still living and ten of these Charter Members were present as honored guests of the Academy. Among these was George W. Benton, then a resident of New York City. His death on June 23, 1952, in his ninetieth year, leaves the Academy with Henry A. Huston as the last surviving Charter Member.

George W. Benton was born on November 15, 1862, in Albion, N. Y., and at the age of fifteen he entered the preparatory department of Wabash College where he continued until he received his degree in 1884. Immediately following his graduation he returned to Albion to become principal of the high school for the next two years, after which he went to Joplin, Missouri, to be office manager of a lead mine. Because of ill health he had to leave Joplin and he accepted a position as teacher of chemistry in Shortridge High School, in Indianapolis, and in time was appointed principal. In 1911 he accepted a position with the American Book Company, in New York, as assistant editor in chief, and in less than a year later he was made editor in chief and a director of the company. He continued in this capacity until 1934 and then, being past seventy, he retired from this heavy responsibility and became secretary to the board of directors, and he also continued to read manuscripts. After ten years of this he definitely retired and went to Appleton, Wisconsin, to live in the home of one of his two daughters, where he quietly passed away in his sleep on June 23, 1952.

While a resident of Indiana he was very active in the affairs of the public schools of the state and in the Indiana Academy of Science. At the Twenty-fifth Anniversary Meeting of the Academy in 1909, as retiring president of the Indiana State Teachers Association, Mr. Benton at the Academy Banquet extended the greetings of the Association to the Academy in the course of which he said, "We see in the Academy the most powerful agency in the solution of the great problem of fitting the highest development of scientific thought into the general scheme of education for all the people."

Mr. Benton was made a Fellow of the Academy in 1896. He was Press Secretary for five years, 1898 to 1902, Editor of the Proceedings, 1899-1901, and Secretary in 1910. During his term as Editor appeared "An Index of Proceedings, 1891-1900," some twenty-one pages of fine type. He was very active in making the Twenty-fifth Anniversary Meeting a success.

He presented a number of papers on chemistry before the Academy of which three were published in the Proceedings. He was much concerned about pure milk and clean water and, in 1895, having discovered bad samples of milk, he pointed out the necessity for chemical inspection of milk to guard against watering, skimming, and the introduction of adulterants such as vegetable and cotton seed oil mixtures.

George W. Benton was possessed of a most charming personality. He was a deeply read man and as a hobby he visited every well known battle-

field connected with the Revolutionary and Civil Wars and he learned all he could about the generals and their battle plans. He lived a long, interesting and worth-while life.

PHILIP WALTER BERG

Miles City, Montana
October 13, 1918

Lafayette, Indiana
April 14, 1953

Philip Walter Berg, at the time of his death on April 14, 1953, was in the midst of the completion of the requirements for the Ph.D. degree in entomology at Purdue. He had shown considerable promise as a researcher and had completed and published several articles, two appearing in recent volumes of the Proceedings. His death at the early age of thirty-four is sincerely to be regretted.

He was born in Miles City, Montana, on October 13, 1918, but his public school work was completed in Marietta, Ohio, High School, following which he entered Marietta College where he received the B.A. degree in 1940. He was a graduate assistant at the University of Iowa from 1940 to 1942, and he later did some graduate work at Ohio State University and the Wood's Hole Biological Laboratory before coming to Purdue in 1946 as a graduate assistant in entomology. From 1943 to 1945 he was an Army technical sergeant in the malarial service.

At Purdue he served for a time as a counselor in Cary Hall, a men's dormitory. He received the M.S. degree at Purdue in 1948 following which he was promoted to an instructorship in the Department of Entomology, and at the time of his death he had established a reputation as a conscientious, loyal worker and an excellent teacher.

He was a member of Phi Beta Kappa, Sigma Xi, Gamma Alpha, and Delta Upsilon, social fraternity. His genuine interest in a scientific career was shown by his membership in the American Association for the Advancement of Science and the Entomological Society of America, and his activity in the Indiana Academy of Science which he joined in 1946 immediately after he came to Purdue. His principal research work had been done in the study of the toxicity of certain insecticides.

CHARLES CLEMON DEAM

Bluffton, Indiana
August 30, 1865

Bluffton, Indiana
May 29, 1953

Without doubt the plant life of no state in the United States is so completely known and catalogued as that for Indiana. This knowledge, of course, has been accumulated through the efforts of many botanists, professional and amateur, over the past century, but the final checking of known individual species and the addition of many new ones, revision of nomenclature, classification in a systematic way, and compilation of comprehensive text references, has been primarily due to Charles Clemon Deam, a non-professional botanist, who took up botany as a hobby in 1893 and pursued its study intensively for almost sixty years.



Charles Clemon Deam was a rugged individualist who appeared brusque and gruff to those not well acquainted with him, but to those who were closest to him and knew his intellectual integrity and scientific sincerity this outward brusqueness masked a humble, modest, unassuming man who despised sham and pretense and was deadly serious about his scientific work. Born on a farm in Wells County, near Bluffton, on August 30, 1865, he learned on the farm what hard work from sunrise to sundown was and he never got over the habit. He remarked once to his long-time friend, Mel T. Cook, that he believed he had split more rails than Abraham Lincoln and at the age of twenty-three he had helped build a rail fence 120 rods long. He finished high school, did a little teaching, and then entered DePauw in 1885 but at the end of two years, on account of finances, sold his books and walked home. That completed his formal schooling and a few years later, in May, 1891, he went into the drug business in Bluffton. However, the confinement in the store affected his health and two years later, following the doctor's advice, he began taking long walks into the country. He had not studied botany in high school or college but his study of the herbs and drugs in his store led him to hunt medicinal plants in his walks along roads and in fields and timber lots. Soon his avocation became almost a vocation with him and in 1900 a friend, J. R. Spivey, became a partner with him in the drug store and this gave him greater freedom for botanizing. But by 1899 he had gone far enough with his

studies to enable him to publish a paper in the Proceedings for that year on "The List of Plants Collected at Cedar, Shriner and Round Lakes."

He began making collections, purchasing books, subscribing for scientific journals, and corresponding with botanists. In time he bought a Model T Ford truck and equipped it for botanizing, and once traveled and lived in it for weeks, doing his own laundry and cooking his own meals. He visited every one of Indiana's 1,016 townships one or more times, and finally collected over 78,000 specimens and built up a library of approximately 3,500 bound volumes besides numerous pamphlets and reprints. In 1943 he sold the Deam Herbarium of 63,000 specimens and his library to Indiana University, but he kept some 15,000 specimens, as he said, for "tradin' stock." "The herbarium and the library together constitute by far the best record available of the vegetation of Indiana during the critical period marked by the disappearance of the original forests and the new biological adjustments accompanying the agricultural and industrial development."

Although author of numerous published listings and descriptions of plants, his life's work finally appears in four books: "Trees of Indiana," "Grasses of Indiana," "Flowering Plants and Ferns of Indiana," and "Flora of Indiana," the latter a work of 1,236 pages and 2,247 maps, published in 1940. This latter work will serve as a model for future works on state floras and provides a background for arranging genera in a herbarium in a systematic way and includes a large proportion of the species of eastern United States. Since 1940, "Flora of Indiana" has been kept up to date through the efforts of an Academy committee in which Drs. Ray Friesner, T. G. Yuncker, Ralph Kriebel, and others, cooperated with Dr. Deam. The volume itself was the culmination of a series of twenty reports by Dr. Deam on "Plants New or Rare in Indiana," which appeared annually in the Proceedings, the last appearing in 1934.

By 1909 Deam's reputation was such that Governor Marshall appointed him as the first state forester, for the term 1909-1913. He was acting state forester, 1917-1919; state forester, 1919-1928; and research forester from 1928 to 1940. During all this time he retained his interest in his drug store although through the years he had different partners, and he held patents on a liquid meat smoker, a fly poison, and a quick freezing ice cream. Mrs. Deam helped him much in his work, reading and clipping botanical items, and helping otherwise. In 1904 he and Mrs. Deam spent three months in Guatemala and Mexico studying plant life and vegetation, and on another trip to the tropics he discovered 50 plants new to science. He had also made trips all over the United States. At his home in Bluffton he had a two-acre arboretum containing 500 varieties of trees and shrubs all properly labeled. Near Bluffton, nearly fifty years ago, he discovered a rare oak, now known as Deam's Oak, a hybrid between the bur oak and the chinquapin oak, and to preserve it he bought the ground on which it stands and gave it to the state.

He was the recipient of many honors. He received an honorary A.M. from Wabash College in 1920, and the Sc.D. degree from DePauw in 1932. In 1939 Indiana University conferred the LL.D. degree on him. He received the Pugsley Silver Medal in 1940 from the American Scenic and

Historical Preservation Society, and in 1947 he received the second Mary Sope Pope Medal of the Cranbrook Institute of Science. In March, 1952, he was made an honorary life member of the Bluffton Lions Club at a dinner attended by Indiana Conservation Department officials and representatives from Purdue and Butler Universities at which a portrait of Dr. Deam was unveiled, to be hung in the courthouse at Bluffton.

Dr. Deam was a member of the American Association for the Advancement of Science for 40 years and a Fellow, and he held memberships in the Botanical Society, the American and British Ecological Societies, and the Society of American Foresters. He joined the Indiana Academy of Science in 1900, became a Fellow in 1910, was Editor of the Proceedings for 1913, and was President in 1924. In 1951 he was made an Honorary Member of the Academy. He had served on various Academy committees at one time or another and was active in all its work until ill health interfered.

On April 23, 1953, Mrs. Deam, his companion and helper for 57 years, passed away, and five weeks later Charles Clemon Deam joined the "Giants of Other Days."



RAY CLARENCE FRIESNER

Bremen, Ohio
February 8, 1894

Indianapolis, Indiana
December 1, 1952

The death of Ray C. Friesner on December 1, 1952, came as a distinct shock to those who had met with him October 16 to 18 at the Academy

Meeting held at Valparaiso University, where he had reported completion and publication of the Ten-Year Index of the Proceedings. He had also presented a paper before the History of Science Section, and made the thirteenth report on "Indiana Plant Distribution Records" to the Plant Taxonomy Division. However, his teaching colleagues knew that he had not been well for several years. He was stricken on November 20 and passed away ten days later.

He was born on February 8, 1894, in Bremen, Ohio, of humble parentage. His mother died when he was six years old, but his father saw him through the Bremen public schools and he entered Ohio Wesleyan University where he received the A.B. degree in 1916. He immediately enrolled in the University of Michigan as a graduate assistant, was promoted to research assistant the next year, and by working the year round, received the Ph.D. degree in 1919. He accepted a position as Assistant Professor of Botany at Butler University that Fall in the Department of Biology under Dr. Henry Lane Bruner. The next year the Department was divided, Dr. Friesner taking over the botany and Dr. Bruner retaining the zoology. He was made an Associate Professor in 1922 and a full Professor in 1925. He became Director of the Division of Graduate Studies in 1944 and three years later was appointed Dean of the College of Liberal Arts and Sciences, but during these periods he continued as Head of the Department of Botany. Thus his whole professional life was devoted to Butler University which he served for a third of a century.

When he first went to Butler but three courses in botany were offered, but under his guidance the Department grew to a staff of four offering about thirty courses. He was deeply interested in research particularly of Indiana plant life and he worked very closely with Charles Deam. His special interests were in taxonomy of Indiana plants, the goldenrods of North America, and dendrology. In 1928 the Butler Botanical Garden was founded and in 1929 the Department began the publication of the "Butler University Botanical Studies" to encourage publication of research by staff members, advanced undergraduates and candidates for Master's degrees.

Dr. Friesner was author or joint author of over forty research papers most of which were published in the "Butler University Botanical Studies." In a number of these papers he collaborated with Dr. Stanley A. Cain and Dr. John E. Potzger. Since 1940 he had served as secretary of the Academy's State Flora Committee and he reported annually on "Indiana Plant Distribution Records," which reports were published in the Proceedings. Following the death of Dr. George Hume Smith who had been employed to compile the Index of the first fifty volumes of the Proceedings, Dr. Friesner took over and saw the Fifty-Year Index to completion in 1948. He then compiled the Index for volumes 51 to 60, which appeared in 1952. When he came to Butler the University had no herbarium, but at his death the Butler Herbarium had nearly 100,000 sheets of ferns and higher plants, several thousand algae, and over a thousand packets of mosses. He was an excellent teacher and an outstanding field man who inspired many of his majors to continue their studies to the doctorate. For departmental use he had written a Key to Indiana Plants.

Dr. Friesner was the recipient of a number of special honors. On September 16, 1944, he was the honored guest at a dinner sponsored by Butler alumni botany majors to celebrate the completion of the twenty-fifth year of the Department of Botany. At the Butler Commencement on June 7, 1948, he became the first recipient of the John Irving Holcomb award of \$500 as the one who had done most for Butler during the year, and in making the award President Ross, of Butler, said, "His accomplishment as teacher, contributor to science and head of a department have been truly remarkable." At the 1947 Fall Meeting of the Academy he received the John M. Coulter Academy Award for his work as secretary of the State Flora Committee and for his researches on tree growth. Finally, his Alma Mater, Ohio Wesleyan University, conferred the honorary Sc.D. degree on him in 1951.

He was listed in *Who's Who in America*, *American Men of Science*, and *Who Knows and What*. He was a Fellow of the American Association for the Advancement of Science and the Ohio Academy of Science, and he was a member of Phi Beta Kappa, Sigma Xi, Phi Kappa Phi and Phi Sigma. He also held membership in the Botanical Society of America, American Genetics Association, Eugenics Research Association, American Association of University Professors, and the Illinois Academy of Science. He joined the Indiana Academy of Science in 1919, became a Fellow in 1925, was Secretary for the ten years from 1926 to 1935, and was President of the Academy in 1936. He served on numerous Academy committees and was unusually well versed on Academy procedure and he was ever ready to serve the Academy in every way possible.

In addition to his numerous duties as dean, department head, teacher and researcher, Ray Friesner found time to be active in the Indianapolis Downey Avenue Christian Church where, at the time of his death, he was chairman of the official Board of Directors, and where for the past twenty years he was teacher of the Philathea Class. He was particularly a student of St. Paul and he had made an extensive study with copious notes on this early Christian.

Ray Friesner was an indefatigable and efficient worker, a fine, inspiring teacher, an able and effective administrator, and a wise and sympathetic counselor of youth. He was an excellent research man and at his best in the field. For many years at the Spring Meetings of the Academy he conducted botany hikes. His untimely passing is a genuine loss to Butler University and to the State of Indiana, and to his numerous friends in the Academy and his church.

LLEWELLYN V. LUDY

Mill Grove, Indiana
January 26, 1875

Lafayette, Indiana
November 8, 1952

It is not given to many men to be associated actively with an institution for fifty years, but Llewellyn V. Ludy's whole life from boyhood on was influenced by Purdue and he is a part of the tradition of Purdue, for he entered that University for his college preparatory work and continued

until he received the bachelor's degree in Mechanical Engineering in 1898. As a Freshman he took the lead in organizing the band which has since become famous as the Purdue Military Band, and he was a musician and an officer of that band for four years. In 1900 he received the professional degree of Mechanical Engineer.

He began his career as a staff member at Purdue, in 1898, as an assistant in the engineering laboratory, became an instructor in mechanical engineering the next year and Professor of Mechanical Engineering in 1901. Except for the year 1911-1912, which he spent at the University of Wisconsin as Professor of Steam and Gas Engineering, his whole professional life was spent at Purdue, until his retirement in 1945. Following his retirement he continued to be active as a consulting engineer.

Professor Ludy was born on January 26, 1875, at Mill Grove, Indiana. He early showed qualities of leadership and he had the scholarship to sustain that leadership. He was the ranking student in his graduating class at Purdue and in his Senior year was designated the Wilbur Scholar of Tau Beta Pi, general engineering honorary scholarship fraternity. Following his graduation he spent the summer of 1900 in Washington, D. C., as an expert in the Bureau of Forestry, and the summer of 1901 as an inspector for the Carnegie Steel Corporation. During World War I, in 1918, he was in charge of the special training of soldiers at Purdue, and during World War II he was local representative of the U. S. Shipping Board, Emergency Fleet Corporation.

He was the author of six books on engineering: Air Brakes, 1915; Locomotive Boilers, 1916; Steam Engines, 1916; Steam Engine Indicators, 1916; Valve Gears, 1916; Mechanical Engineering Laboratory Notes, 1942. His research interests were in steam and gas engineering.

Professor Ludy was a Fellow of the American Association for the Advancement of Science and a member of the Society of Mechanical Engineers, the Society of Engineering Education, and the Indiana Engineering Council. He was also a member of Sigma Xi, Tau Beta Pi and Pi Tau Sigma, and the social fraternity Sigma Phi Epsilon, being a Faculty sponsor. He was also listed in *Who's Who in America*. He joined the Indiana Academy of Science in 1918 and was later made a Fellow, but since the Academy has no section in engineering he was not active in Academy work.

He was interested in civic affairs and was a long time member of Rotary and the Masons. An active Presbyterian, he was an elder and served on committees of the Presbytery and Synod, and for more than twenty-five years he was secretary of the Board of Westminster Foundation and influential in organizing and building the University Presbyterian Church.

Professor Ludy was a sincere, friendly man who tried to see the good in his fellowmen. Quiet and reserved, and possessing a calm and even disposition, he was a wise counselor of youth and a teacher who trained men by example. Excellent citizen and sincere churchman, he lived a long and useful life. He passed away in Lafayette, Indiana, on November 8, 1952.

JASPER PAUL SCOTT

Whiteland, Indiana
December 9, 1897

Indianapolis, Indiana
September 8, 1953

The Academy derives much of its value and strength from the scientists in industry whose research is in no sense academic but generally devoted to immediate practical ends. Jasper Paul Scott, who passed away at the untimely age of fifty-five, on September 8, 1953, was the fourth scientist from Eli Lilly and Company lost to the Academy during the past three years.

Mr. Scott was born near Whiteland, in Johnson County, on December 9, 1897, and, following the usual public school education, entered Franklin College where he graduated magna cum laude in 1919. He taught science in Bedford High School the next year and in 1920 became a research chemist with Eli Lilly and Company. During the next thirty-three years he was successively assistant director of research development, director of research contacts, director of functional co-ordination, and director of industrial engineering, before being named, on December 1, 1952, executive director of operations planning. In 1939 Franklin College conferred on him the honorary Sc.D. degree for his work in biochemistry.

In his research work he made contributions to the development of insulin, liver and pituitary extracts, and vitamin products.

Dr. Scott was a member of the American Association for the Advancement of Science, the American Chemical Society, and the American Pharmaceutical Association. He joined the Indiana Academy of Science in 1946 but he had not been active in its work. A thirty-second degree Mason, he was affiliated with the Mystic Masonic Lodge and the Scottish Rite in Indianapolis. He was also a member of the Baptist Church.

A good citizen, an excellent scientist, and a fine man, popular and well liked as a member of the scientific staff at Eli Lilly and Company, he made his contribution to the welfare of humanity and his work will long benefit mankind.

KARLIS STARCS

Lubeja, Latvia
May 18, 1897

Indianapolis, Indiana
February 4, 1953

War, the result of man's folly and his greatest enemy, is no respecter of persons in an invaded land. The Baltic countries in Europe, victims of the worst in two World Wars, have suffered the loss of their wealth and their intellectual leaders. Many of these trained and skilled workers have fled their native lands and the United States has been fortunate to serve as a haven for many of them. American universities, particularly the larger ones, have gladly employed many of these refugees on their staffs, and have thus availed themselves of their genius and talents. Other escapees have not been quite so fortunate on account of language or other difficulties for which they are not responsible. Karlis Starcs was such a person.

Karlis Starcs, together with his wife and two sons, came to the United States in 1950 with the help of the International Refugee Organization, and arrived in Indianapolis on December 23, and accepted a position in January, 1951, as assistant gardener at the home of Mr. Eli Lilly. A native of Latvia, he was born on May 18, 1897. Completing his high school work in 1918, he was employed as a botanist and began his study of the Natural Sciences at the Latvian University. For the next twenty-five years he was employed as a botanist, but he completed the work for the Master's degree in 1936, and from 1937 to 1944 he was assistant director of the Latvian Institute of Plant Disease in Riga. In 1944 he was evacuated to Germany and from February to June, 1945, he was Deputy Conservator and Botanist at the Herbarium Haussknecht in Weimar, Bavaria, and then he was evacuated again, this time to the United States Zone in Bavaria. During 1946 and 1947 he was Senior Assistant and Lecturer in Dendrology and Phytopathology in the UNNRA University in Munich in the Agriculture and Forestry Department. Also from 1944 to 1950 he explored Bavarian flora and made a large plant collection as a private botanist-collector having a Displaced Persons Status. When he left Latvia he left behind his private botanical collection of about 100,000 specimens. When he entered the United States he brought with him over 6,000 specimens of fungi, mosses, flowering plants, and lichens.

Mr. Starcs was a fine looking man, an excellent botanist, and a cultured man who wrote and spoke fluently Latvian, German and Russian, and could read understandingly professional literature in English, French, Latin, Scandinavian and Slavic languages. He was affiliated with a number of European botanical societies and he had published sixty-six articles totaling about 1,700 pages. He had a total of 32 years of experience in plant collecting and herbarium work. He joined both the Botanical Society of America and the Indiana Academy of Science in 1952, but his premature death on February 4, 1953, prevented his participation in their activities.

His wife, Mrs. Helene Starcs, is also a trained botanist and was a teacher of Natural Sciences at the University of Riga, and since the passing of Mr. Starcs, she has joined the staff of the Department of Botany at Butler University as a Research Assistant in Botany.

PHILIP FREELAND TRYON

Chicago, Illinois
October 4, 1914

Terre Haute, Indiana
February 19, 1953

In the death of Philip Freeland Tryon on February 19, 1953, at the age of thirty-eight, the Academy lost one of its most promising and productive younger members, for he was not only the author or joint author of seven research papers in chemistry, but he also held some 17 patents on chemical processes and chemical compounds, and he had three patents pending at the time of his death.

He was born on October 4, 1914, in Chicago, Illinois, received his public school education there, and entered the University of Chicago where he received the B.S. degree in 1934. He secured the M.S. degree at Cornell University in 1937, and then returned to the University of

Chicago where the Ph.D. degree in organic chemistry was conferred on him in 1939. He immediately entered the employ of the Chemical Solvents Corporation, at Terre Haute, Indiana, as a research chemist. He spent six years in research development and production of antibiotics, and seven years on industrial chemicals.

During these years of research he worked specifically with the chemistry of nitroparaffins, isolation of streptomycin and bacitracin, chemistry of hydroxylamine and the production of hydroxyl-ammonium salts, synthetic organic insecticides, plasticizers for synthetic rubber, and hydrogen-deuterium exchange reactions of phenols and phenol ethers.

Dr. Tryon was a member of the American Chemical Society, and of Phi Beta Kappa and Sigma Xi. He joined the Academy in 1946 but he had not been active in any Academy work. He was also a member of the Alpha Tau Omega social fraternity.

He was a member of the Congregational Church in Terre Haute, and he was active in Cub Scout work with his two sons. His principal hobby was botany and he was much interested in the conservation of our natural resources.

In the passing of Philip F. Tryon while just entering the prime of life and approaching the heights of a research career, the Academy, the State, and industry have suffered a real loss.