WILL E. EDINGTON, DePauw University

FRANCIS EUGENE BIBBINS

Beloit, Wisconsin September 28, 1883 Indianapolis, Indiana December 8, 1951

America is rapidly becoming conscious of the splendid achievements of such great organizations as Eli Lilly & Company, Monsanto Chemical Company, Upjohn, Parke, Davis & Company, and others, because of their research and development of the "wonder drugs," but few Americans realize that thousands of their fellow Americans, generally unknown to other than a few of their fellow workers, spend their lives pursuing the elusive clues that lead to the discoveries that literally remove the terror by day and the pestilence that walketh in darkness. Such a worker was Francis Eugene Bibbins who devoted forty-five years of his life to service with Eli Lilly & Company.

Dr. Bibbins was born on September 28, 1883, in Beloit, Wisconsin. He attended the elementary schools in Beloit, and Kankakee, Illinois, and was graduated from the Delphi, Indiana, High School. He then went to work in Delphi as a butcher boy, but through the kindly interest of a local druggist he was encouraged to work in his drug store and begin the study of pharmacy. Purdue University at that time offered a two-year course in pharmacy and young Bibbins decided to enter Purdue, although it would be necessary for him to earn his way while he studied. In December, 1903, six months before he expected to graduate, Eli Lilly & Company requested that the Purdue College of Pharmacy recommend to them a promising young man, and young Bibbins received the call. He accepted the position with considerable misgivings because of the fear that he would not be able to graduate with his class, but in June, 1904, the Dean of the College of Pharmacy wrote for him to report for graduation and he received the Bachelor of Pharmacy degree. He began his work at Lilly's as a pharmacist and became the Chief Pharmacist in 1913. At the time of his retirement in 1948 he was Head of the Formula Control Department. Dr. Bibbins passed away on December 8, 1951.

Recognition of Dr. Bibbins' ability came early for in 1927 he was chosen President of the Board of Trustees of the Indianapolis College of Pharmacy, now the Butler University College of Pharmacy, and he served in this capacity until 1945. He was made a member of the U. S. Pharmacopoeia revision committee in 1930, and he later served on the National Formulary revision committee. The Indianapolis College of Pharmacy conferred the honorary Bachelor of Science degree on him in 1929, and in 1942 Purdue honored him with the Doctor of Science degree. Following his retirement in 1948 he was made an honorary member of both the American and the Indiana Pharmaceutical Associations.

Long a member of the American Pharmaceutical Association, he was chairman of its Science Section in 1934 and secretary of this Section from 1935 to 1943. He was also a member of the American Association for the Advancement of Science and the American Chemical Society, and an honorary member of the pharmaceutical fraternity, Kappa Psi. Dr. Bibbins joined the Indiana Academy of Science in 1940, but he had not been active in its work.

Dr. Bibbins was an excellent citizen, active in church work and Masonry. He had a deep and sincere interest in Masonic organizations, being a member of the Blue Lodge, the Keystone Chapter of the Raper Commandery, Scottish Rite, and the Shrine. He was also a member of the Columbia Club and the Indianapolis Athletic Club. As a scientist he made his contribution through pharmacy to the tremendous strides in health improvement so apparent throughout the United States today.

CHARLES HIRE

Columbia City, Indiana December 1, 1887 Bloomington, Indiana September 8, 1952

With the sudden death of Dr. Charles Hire Indiana University lost one of its outstanding teachers and a prominent alumnus. He was distinctly a Hoosier-trained scientist for he received all his formal education in the State. He was born in Columbia City on December 1, 1887, and after completing his public school education he taught for two years in the rural schools of Whitley County, and also served as principal of Churubusco High School from 1912 to 1914. Several years of his undergraduate study were worked in between his years of teaching and he finally received the A.B. degree from Indiana University in 1915.

Following his graduation he became a laboratory assistant in physics at Indiana University for the next two years and completed the work for the M.A. degree in 1917. With the entrance of the United States into World War I in 1917 he volunteered and entered the First Officers Training Camp and was commissioned a First Lieutenant. In December, 1917, he went to Europe as a member of the American Expeditionary Forces, saw service in France as a Captain in the Ordnance Department, and returned to the United States in July, 1919. He accepted an instructorship in the Department of Physics at Indiana University that Fall and four years later he was promoted to Assistant Professor. In 1925 he was appointed Head of the Department of Physical Sciences in the Kentucky State Teachers College at Murray, Kentucky, which position he held for the next eighteen years. During this time he completed the work for the doctorate in physics and received the Ph.D. degree in 1927 from Indiana University. He also served as Dean of Men at Murray from 1926 to 1929, and directed their Summer Session in 1931.

Dr. Hire returned to Indiana University in 1943 to be supervisor of physics instruction in the Army Specialized Training Program and the following year he was appointed Acting Head of the Department of Physics for that year. Since 1945, up until the time of his death from heart attack on September 8, 1952, he was Professor of Physics.



Dr. Edward Garfield Mahin

Professor Hire was a Fellow in the American Association for the Advancement of Science and a member of the American Physical Society, the American Association of Physics Teachers, the American Association of University Professors, and the Indiana and Kentucky Academies of Science. He was President of the Kentucky Academy of Science in 1939-1940, and edited its Quarterly Journal from 1941 to 1943. He joined the Indiana Academy of Science in 1944. He had membership in both the National and Kentucky Educational Associations. He was also a member of Sigma Xi and was listed in Who's Who in America.

In research Dr. Hire had done work on the Brownian movement, interfacial surface tension, and capillary action and the absorption of air on glass. He was the author of two textbooks, Laboratory Studies in College Physics and College Physics for General Education.

Dr. Hire was primarily a teacher rather than a laboratory technician and he was a most interesting lecturer to beginning students in physics and attracted quite a large number to his classes. The University recognized this skill and placed him in charge of elementary physics courses. He insisted on hard work on the part of the student as well as for himself and he succeeded in holding the respect and friendship of his students despite his rigorous insistence on high standards and hard work. Also during the past few years Dr. Hire had built up quite a reputation over the State as a popular lecturer on atomic energy.

Amateur photography interested Dr. Hire and he possessed considerable photographic equipment. Also he was interested in building houses and he had built two while living in Kentucky, and it was while working on one in Bloomington that he possibly overtaxed his strength and the fatal heart attack resulted.

EDWARD GARFIELD MAHIN

Lafayette, Indiana August 16, 1876 South Bend, Indiana February 4, 1952

During the past twenty-five years Purdue University has developed its graduate study to the point that it now has one of the largest graduate schools in the United States. The first Ph.D. degree ever given by Purdue was conferred on D. T. McDougall in 1897, in botany, under the direction of J. C. Arthur, and the second was not conferred until 1928, although four Doctor of Engineering degrees were granted, one each in 1904, 1908, 1914 and 1920. In the Spring of 1922 the Purdue faculty "directed that a committee of the faculty be appointed to study the various problems and to outline the several necessary steps for the organization, establishment and maintenance of a graduate school whose functions shall be extended as rapidly as possible." President Edward C. Elliott, who came to Purdue in the Fall of 1922, accordingly, in 1924, appointed a Committee on Graduate Study composed of seven professors and the Registrar, with Dr. Edward G. Mahin, of the Department of Chemistry, as chairman. This Committee during the next year made an extensive and intensive study of graduate policies and procedures followed in other universities of the

United States and made its Report in the Spring of 1925, a Report approved by the Trustees in April, 1925, and adopted by the faculty in June, 1925, on which the present Graduate School at Purdue is founded.

Edward Garfield Mahin was born near Lafayette, Indiana, on August 16, 1876, and following the completion of the work offered by the public schools, he entered Purdue University and was graduated with the B.S. degree in 1901. He was immediately appointed an assistant in chemistry at Purdue and two years later received the M.S. degree and was promoted to instructor. In 1906 he entered Johns Hopkins University to do graduate study, was made a Fellow in 1907, and received the Ph.D. degree in 1908. He returned to Purdue as Associate Professor of Analytical Chemistry and in 1914 was made a full Professor. During the war period, 1917 to 1919, he spent the summers as metallographist at the United States Naval Engineering Experiment Station. In 1925 he resigned at Purdue to accept the first professorship in metallurgy at the University of Notre Dame and was made Head of the Department in 1932. He retired in 1949 and passed away on February 4, 1952.

Dr. Mahin enjoyed a national reputation as a chemist and metallurgist. He was author of numerous research papers in the leading chemical and metallurgical journals and he was also the author of five books. His Quantitative Analysis first appeared in 1914 and passed through four editions. He was joint author in 1923 with R. H. Carr of Quantitative Agricultural Analysis, and in 1929 his Introduction to Quantitative Analysis was published. He became a Contributing Editor to the Journal of Chemical Education in 1925 and continued for many years. His research was in analytical chemistry and in the hardness, carburization and inclusions in steel. He presented twelve papers and nine joint papers before the Indiana Academy of Science of which fourteen were published in the Proceedings of the Academy. His Presidential Address to the Academy, Metals and Microscopes, gave a very comprehensive survey of the knowledge of metals up to the year 1928. His first paper was published in 1902 and he continued active publication during the next forty years.

Dr. Mahin was very active in the American Society for Metals, being chairman of its Committee on Constitution and By-Laws in 1938-39, a member of its publications committee from 1941 to 1944, serving as chairman the last year, and a Trustee from 1947 until his death. He was also a member of the American Institute of Mining and Metallurgical Engineers, the American Foundrymen's Association, the American Society for the Promotion of Engineering Education, the British Iron and Steel Institute and the British Institute of Metals. For a number of years he was a member and Fellow of the American Association for the Advancement of Science. Dr. Mahin joined the Indiana Academy of Science in 1902, became a Fellow in 1922, and was its President in 1928. He served on various committees, among them the Academy Research Committee for twenty-five years, and he was a member of the Research Grant Committee at the time of his death.

Among his honors were his memberships in Phi Beta Kappa, Sigma Xi, Tau Beta Pi and Phi Lambda Upsilon. Notre Dame honored him with the Distinguished Teacher Award and, in 1950, Purdue conferred on him

the honorary Doctor of Science degree. He has been listed in Who's Who in America for many years.

Edward G. Mahin was a man who had decided convictions and was fearless in maintaining his stand on what he believed to be right. He believed in and practiced high educational standards and he possessed considerable administrative skill and ability. These qualities secured for him the highest respect of his students and colleagues, and he was recognized as an outstanding member of the Faculty both at Purdue and Notre Dame. He brought honor to both institutions. The Indiana Academy of Science recognizes him as one of its scientific leaders and faithful servants.

Alfred Peter Poorman

Altamont, Illinois February 13, 1877 Lafayette, Indiana February 12, 1952

When Alfred Peter Poorman came to Purdue University in 1909 the University enrolled fewer than two thousand students and at the time of his retirement in 1947 the number of graduate students alone enrolled exceeded that number. During that time, one of the most remarkable periods in mass education, Professor Poorman had seen and helped Purdue to develop into one of the great engineering schools of the world.

Professor Poorman was born at Altamont, Illinois, on February 13, 1877, and he completed all the public school work offered by Altamont in 1894. For several years thereafter he helped his father operate two farms near Altamont. Desirous of continuing his education he entered the Academy of the University of Illinois, graduated in 1903, and then began his course in civil engineering and received the degree, Bachelor of Science in Civil Engineering, with honors, in 1907. That Fall he went to the University of Colorado as an instructor in civil engineering and by 1909 he had completed the required work for the Bachelor of Arts and Civil Engineering degrees at that university. He spent the Summer of 1909 as a hydrographer on the Wind River Indian Reservation, in Wyoming, and then came to Purdue in September, 1909, as Assistant Professor of Applied Mechanics. In 1917 he entered the United States Army and in June, 1918, he went to France as a captain with Company A, 29th Engineers, stationed at Langres, France. He served as a Supply Officer of the General Headquarters, American Expeditionary Forces, until June, 1919. Following his return to the United States he again took up his work at Purdue, was promoted to Associate Professor in 1920 and two years later to Professor of Applied Mechanics. He was Acting Head of the Department of Applied Mechanics from 1942 to 1944 and retired as Emeritus Professor in 1947, after thirty-six years of service to Purdue. Stricken suddenly with acute meningitis on February 11, 1952, he passed away the next day, on the eve of his 75th birthday.

Professor Poorman was active in several professional engineering societies. He helped to organize and was the first chairman of the Applied Mechanics Division of the Society for the Promotion of Engineering Education, now known as the American Society for Engineering Education, and was a member of its Council from 1932 to 1935. The American Society of Civil Engineers made him a life member in 1943. He was also a member of the American Concrete Institute, the American Society for Testing Materials, The American Association for the Advancement of Science, and the American Association of University Professors. Among his honors were memberships in Tau Beta Pi, Sigma Xi, Chi Epsilon and Scabbard and Blade. He was also listed in *Who's Who in America*. He became a member of the Indiana Academy of Science in 1924 and was made a Fellow in 1935.

Professor Poorman did not publish many articles in professional journals but he was the author of two widely used textbooks, one on Applied Mechanics in 1917, and the other on Strength of Materials in 1925. Both books passed through four editions.

A man of pleasing and gracious personality, Professor Poorman was an effective teacher who had an intense interest in this students and in his fellowmen in general. He found time to work for his community, his church and his family. A member of the Official Board of the Trinity Methodist Church, he was also active in Sunday School work where he attracted many who came to hear his interesting discussions of Biblical history and allegories. Alfred Peter Poorman leaves behind him a record of devoted service to his community and to many generations of Purdue students. His was a full and productive life.

HARLEY WESLEY RHODEHAMEL

Indianapolis, Indiana December 6, 1884 Indianapolis, Indiana April 8, 1952

Within a period of less than a year the Indiana Academy of Science has lost three members, John Shepard Wright, Francis Eugene Bibbins and Harley Wesley Rhodehamel, whose careers were remarkably similar in that each graduated from Purdue and each devoted his whole professional life to humanitarian service with Eli Lilly and Company and each retired as director of his special field with that great organization. Harley Wesley Rhodehamel, the last to pass away, retired as executive director of research and control in December, 1949, and died after a short illness on April 8, 1952.

Mr. Rhodehamel was born in Indianapolis on December 6, 1884, and received all his public school education there, graduating from Manual Training High School in 1904 at the head of his class. He then entered Purdue and was graduated with the Bachelor of Science degree in chemistry three years later. He immediately entered the service of Eli Lilly and Company as a chemist, worked successively in the drug and chemical stores department, the production offices, the engineering division, and the analytical department until 1915 when he was made director of the research division. In 1947 he was appointed Executive Director of Research and Control, and he retired two years later after forty-two years of service with the Lilly organization. As a biochemist Mr. Rhodehamel made important contributions to many Lilly products, especially Iletin (Insulin, Lilly), liver extracts and barbiturates. He also designed equipment for chemical research and production. For many years he was the company representative in all its dealings with the Council of the American Medical Association. His principal research was in the manufacture and purification of insulin, and the development of liver extracts, parathyroid extract and antibiotics. His international interest in chemistry was reflected by his memberships in the American, German and Swiss Chemical Societies. He was also a member of the American Pharmaceutical Association and a Fellow of the American Association for the Advancement of Science. He joined the Indiana Academy of Science in 1940. He was also active in the Indianapolis Chamber of Commerce and he was a charter member of the Scientech Club of Indianapolis.

A great lover of music he played both the piano and violin, and his hobbies were photography and the technical side of radio and television, at which he worked in his own well equipped workshop. He was devoted to his home, his family, and his friends, and he was particularly interested in any movement for the welfare of children.

An excellent scientist and executive with a deep interest in the welfare of his fellow workers and mankind in general, untold thousands owe much to Harley Wesley Rhodehamel's forty-two years of unselfish, devoted service and research in relieving human suffering and fear. The safety and happiness of millions have been increased through the labors of this modest and unassuming scientist.

ERNEST RICE SMITH

Cameron, Missouri July 3, 1891 Ithaca, New York March 21, 1952

The history of geology in Indiana extends over more than a century, for the first special geological survey of the State was made in 1837-1838 by David Dale Owen. At that time Indiana was only one of fifteen states conducting geological surveys and out of all that activity came the organization in 1840 of the Association of American Geologists and Naturalists, which became the American Association for the Advancement of Science in 1848. Many prominent scientists in Indiana have been active at one time or another in geological work, among them David Dale Owen, Richard Owen, E. T. Cox, Ryland T. Brown, John Collett, Josiah T. Scovell, Willis S. Blatchley and John C. Branner, and more recently Clyde A. Malott. Another Indiana geologist who has wielded considerable influence as a geologist, particularly in the training of geologists, was Ernest Rice Smith who came to DePauw University in 1921 to organize the Department of Geology and during his twenty-six years of service at that institution trained a comparatively large number of young men who continued their studies to the doctorate and now hold important positions in American universities and with the great oil companies.

Ernest Rice Smith, or "Rock" Smith, as he was known to his friends, was a man of marked personality and to some of his geology major students would rank as the most remarkable man they had ever known. Only those who were willing to observe the highest standards of scholastic achievement and to endure the hardships of long and arduous geological field trips could expect to obtain the geological blessing of Professor Smith. He loved the hills and valleys and he did not spare his students and he did not spare himself, but he secured and retained a remarkable and enduring loyalty from his major students.

He was born in Cameron, Missouri, on July 3, 1891. Upon completing his public school education he entered Oberlin College and was graduated in 1912 with the Bachelor of Arts degree. He spent the next two years at Fisk University as an instructor in geology and mathematics and then entered Cornell University. He became a graduate assistant in mineralogy in 1915, and later a Goldwin Smith Scholar and Fellow and an instructor in geology. The year 1917-1918 he worked in Panama and Costa Rica as a petroleum geologist with the Sinclair Oil Company, resigning to enter the Army. He served overseas as a lieutenant and following the Armistice spent some time at the Sorbonne. On his return to the United States in 1919 he went to the University of Michigan as an instructor in geology, and the year following he returned to Oberlin College as an Acting Assistant Professor of Geology. He came to DePauw in 1921 as an Assistant Professor of Geology and in time became Professor and Head of the Department of Geology. Due to a serious automobile accident in January, 1942, which kept him out of the classroom for eighteen months and from which he never fully recovered, and several heart attacks later, he was forced to retire from active teaching in 1947. He and Mrs. Smith then went to Ithaca, New York, where Professor Smith became associated with the Paleontological Research Institution of Ithaca, of which he was a Trustee at the time of his death, on March 21, 1952.

Professor Smith was an active geologist who delighted in long field trips. He derived the greatest of pleasure, as long as he was able, in attending meetings of the Geological Society of America, the Association of Petroleum Geologists and the American Association for the Advancement of Science, where he met many of his former students with whom he kept in close touch through regular correspondence and a voluminous, illustrated Departmental News Letter sent out at regular intervals for a number of years. He also held membership in the Crystallography Society, the Geological Society of France, and the Michigan and Ohio Academies of Science. He joined the Indiana Academy of Science in 1921 and became a Fellow in 1933. He was also a member of Phi Beta Kappa and Sigma Xi. The geology library at DePauw, built up through his efforts, is now known as the E. R. Smith Geology Library and is housed in the Department quarters.

Not only was "Rock" Smith an excellent teacher and field geologist but he also had done research in Pliocene and Pleistocene paleontology, marine mollusks, and sedimentation, and in later years, quicksand. He published occasionally in geological journals. In the Indiana Academy of Science he was active and frequently presented papers, of which eight were published in the Proceedings. He served on the Academy Committee

for Archaeological Survey from 1930 to 1935, and on the Committee for Publication of the Proceedings from 1934 to 1937. He was also a Sectional Chairman several times.

Professor Smith was not only an excellent teacher and geologist but he was also a man of sterling character who had ideals and sincere convictions and the courage to stand for what he believed to be right. He was interested in a better community and at one time was really active in Boy Scout work. Ernest Rice Smith lived a full and effective life.

JESSE ELMER SWITZER

Waynetown, Indiana September 26, 1876 Bloomington, Indiana May 29, 1952

When Jesse Elmer Switzer passed away on May 29, 1952, from a concussion following a fall from a scaffold while painting the eaves of his house, the Academy lost one of its most active older members. He had served as chairman of the Membership Committee for six years, from 1945 to 1950 inclusive, and was Vice-President of the Academy in 1951. He was very conscientious and effective in his work for the Academy, which he had joined in 1923. He became a Fellow in 1926.

Dr. Switzer was a native of Waynetown, Indiana, and was born on September 26, 1876. For a number of years after completing his public school education he taught in the grade and high schools of the State, and began his college education at Central Michigan State College. In 1911 he received the Bachelor of Arts degree at the University of Chicago, and the Ph.D. degree in Geography was conferred on him in 1923 by Clark University.

Immediately following his graduation from the University of Chicago he went to the North Dakota State Teachers College, at Valley City, as Head of the Department of Geography. He remained there ten years and resigned in order to complete the work for the doctorate. He came to Indiana University in 1923 as Assistant Professor of Geography, was promoted to Associate Professor two years later, and became Professor of Geography in 1936. He retired as Professor Emeritus in 1947. Dr. Switzer had spent a number of summers as instructor in geography at other institutions, two at Yale University, three at Peabody College, two others in North Dakota and Ohio, and one at the Pennsylvania State Teachers College at California, Pennsylvania.

He had been a Fellow of the American Association for the Advancement of Science for over twenty-five years, and he was a member of the American Meteorological Society and the Society of Professional Geographers. From 1943 to 1946 he was a Director of the National Council of Geography Teachers and he had served as president of its Indiana Section. At Indiana University he had been president of the Bloomington chapters of Sigma Xi and the American Association of University Professors. A very active member of Kiwanis International he had been president of the Bloomington Club and he was a Lieutenant Governor of the Indiana district at the time of his death. Dr. Switzer was a sympathetic and earnest teacher who was always anxious to be helpful to his students. He believed in and lived the ideal of service and through his friendly and cooperative efforts in the service club, the University, and his church, he helped to make Bloomington a better place in which to live. Primarily a teacher he nevertheless published occasionally in professional journals and he also presented a number of papers before the Academy, four of which were published in the Proceedings. In his death the Academy has lost a conscientious, faithful worker, and his community has lost an excellent citizen.