

NECROLOGY

WILL E. EDINGTON, DePauw University

JACOB A. BADERTSCHER

Bluffton, Ohio
January 11, 1879

Bloomington, Indiana
March 12, 1959

During the period of 35 years from 1914 to 1949 more than four thousand students in the Medical School at Indiana University took courses in Histology and Neural Anatomy in preparing to become doctors, and their instructor in these vital courses was Jacob A. Badertscher. It is difficult to realize what a tremendous influence this one man has had on the lives of these future doctors and the tens of thousands of patients that came under their care.

Jacob A. Badertscher was born in Bluffton, Ohio, on January 11, 1879. After completing the usual public school courses he ultimately began his undergraduate work in Ohio University, Athens, Ohio, served as an assistant in biology in his senior year and as an instructor the following year, and received the Ph.B. degree in 1909 and the Ph.M. in 1910. That fall he was appointed assistant in histology and embryology at Cornell University and an instructor the following year. In 1914 he received the Ph.D. degree in those subjects. He immediately came to Indiana University as an instructor in Anatomy, was promoted to assistant professor the next year and to associate professor in 1917, and became Professor of Anatomy in 1921. He remained at Indiana until his retirement in 1949 as Professor Emeritus. He also served as Assistant to the Dean from 1940 until his retirement.

Dr. Badertscher was a perfectionist both as a teacher and a researcher. He was a kindly man, behind his back affectionately known as "Jakie" to his students, who recognized in him a great teacher who was personally and devotedly interested in their welfare and success. As a teacher he was very conscientious and demanded perfection in student performance and yet he was considered as eminently fair. At the time of his retirement he received hundreds of congratulatory letters from his former students and characteristically he wrote a note of thanks to each one of these hundreds of student well-wishers.

During his active years he carried on research in microscopic anatomy and published articles in the Proceedings of the Society of Experimental Biology and Medicine, American Journal of Anatomy, Anatomical Record, and Stain Technology. He was a "superb technician and a meticulous and accurate investigator" whose results could be and were accepted with complete confidence.

He was a member of the American Association of Anatomists. He joined the American Association for the Advancement of Science in 1917 and was made a Fellow in 1921. He became a member of the Indiana Academy of Science in 1914 and was elected a Fellow in 1917. He also held membership in Phi Beta Kappa, Sigma Xi, and Phi Chi medical

fraternity. He was listed in *Who's Who in America* and *American Men of Science*.

Dr. Badertscher lived a full life of service to humanity and passed away on March 12, 1959, at the age of 80, following a heart attack. The subtle but real influence of his work will continue indefinitely.

PEARL HARVEY BREWER

Upper Sandusky, Ohio
December 10, 1883

West Lafayette, Indiana
December 8, 1958

Successful modern agriculture is largely applied chemistry. The soil is studied and treated to fit the plant. The plants and animals are studied for their environmental and growth characteristics and for the control of their diseases and the pests that prey on them. Agricultural chemistry and farm mechanization are basic in our economy and to the teachers and researchers in these subjects in our agricultural schools is due the credit for a significant part in the attainment of our high standard of living. Pearl Harvey Brewer as a teacher of agricultural chemistry for 34 years at Purdue University made a distinct contribution to agriculture in Indiana. While he regularly taught courses in general agricultural chemistry and advanced soil chemistry, his general interest was in the application of colloid chemistry to agriculture, a course he initiated in 1926 and taught every year until his retirement in 1954.

Professor Brewer came to Purdue in 1920 as an instructor in agricultural chemistry. Previously he had taught seven years as principal in Harrod and Magnolia High Schools in Ohio. Entering Defiance College he served as an instructor from 1917 to 1919 and received an A.B. degree in chemistry and mathematics in 1919. The next year he spent as a research chemist with the American Roller Mills. At Purdue, as time from his teaching would permit, he did graduate study and received the M.S. degree in 1931. He was promoted to assistant professor in 1933 and in 1934 he was transferred to the newly created Department of Agricultural Chemistry where he also taught courses in dairy chemistry and food analysis. In recognition of his long and faithful service to Purdue he was awarded at the time of his retirement, in 1954, the title of Professor Emeritus. Professor Brewer was an enthusiastic and stimulating teacher.

He joined the Indiana Academy of Science in 1921 but he had not been active in its work. He became a member and a Fellow of the American Association for the Advancement of Science in 1934 and he was also a member of the American Chemical Society. His research interests were in the virus diseases of plants and animals and he also did some work in the purification of soybean oil. He was listed in *American Men of Science*.

Professor Brewer was active in civic and church work, being a member of the Exchange Club for a number of years and a member of the Official Board of the First Christian Church in Lafayette. An ardent Mason, he was active in the Eastern Star, the Lafayette Commandery and the Knights Templars. In his earlier years he was an enthusiastic golfer and he maintained a cottage on Lake Freeman where he enjoyed fishing and boating. He was also interested in his farm near Lima, Ohio.

Pearl Harvey Brewer was born on December 10, 1883, in Upper Sandusky, Ohio, and he died on December 8, 1958, in his home in West Lafa-

yette, Indiana, following a heart attack, just two days before his seventy-fifth birthday.

ADAM HASTINGS FISKE

Wrightsville, Pennsylvania
September 27, 1894

Woodside, California
August 25, 1959

Fate was unkind to Adam Hastings Fiske. Apparently in excellent health, he had retired on April 30, 1959, as a vice-president of Eli Lilly & Company, after 40 years of distinguished service, and had moved from Indianapolis to a new home in Woodside, California, near San Francisco, with every expectation of enjoying a few years of leisure. He died of a heart attack on August 25, 1959, while on a fishing trip.

Dr. Fiske was born on September 27, 1894, in Wrightsville, Pennsylvania, and received his public school education there. After graduating from high school he entered the Philadelphia College of Pharmacy and Science and received a degree in pharmacy in 1916. He remained at the college the next year as an instructor and then entered the Army and served as a second lieutenant and pilot in the Air Service from 1917 to 1919 in World War I. He joined Eli Lilly and Company in 1919.

His all-around ability and leadership qualities were early recognized and led to his appointment to positions of responsibility in widely varied phases of the company's operations. He had served as production superintendent, director of the control division, manager for seven years of the western division of the sales organization with headquarters in San Francisco, manager of domestic sales, executive director of the research and control division, and, in 1945, vice-president in charge of research, development and control. In 1947 he became a member of the Lilly Board of Directors and the Executive Committee. He relinquished his responsibilities in development and control in 1955 to become Lilly's international representative in developing and maintaining contacts with chemical and pharmaceutical manufacturers in Great Britain and Europe. In all his dealings with his fellow workers he was recognized as fair, considerate and loyal.

Dr. Fiske was a member of the board of the United States Committee of the World Medical Association and also a member of the board of trustees of the Health News Institute and he was its president the year preceding his death. He also held memberships in the American Association for the Advancement of Science, American Pharmaceutical Association, Association of Food and Drug Officials, American Institute of Management, New York Academy of Sciences, Indianapolis Chamber of Commerce, National Rifle Association, American Legion, Kappa Psi professional pharmacy fraternity, and the Service Club of Indianapolis. He was also a Mason. He joined the Indiana Academy of Science in 1946.

He served as a trustee of the Philadelphia College of Pharmacy and Science and in recognition of his distinguished service the College awarded him the honorary Doctor of Science degree in 1956. In 1958 the American Drug Manufacturers Association presented him with a resolution recognizing his service as president in 1954-55, vice-president for two years previously and member of its executive committee for eleven years. Dr. Fiske was listed in Who's Who in America.

Dr. Fiske was not known to many members of the Academy and it is to be regretted that the Academy as organized at present does not attract the active participation of the pharmaceutical chemists. However the Academy is proud of the service of Dr. Fiske and his interest in the Academy.

ELMO WAYNE GROSS

St. George, West Virginia
March 31, 1916

Bloomington, Indiana
December 25, 1958

In the untimely death of Elmo Wayne Gross at the age of 42 Indiana lost one of its most progressive and successful science teachers. Since 1952 he had trained four finalists in the national Westinghouse Science Talent Search which gave the Indiana University High School the distinction of producing more finalists in this contest than any other Indiana high school. He was a master teacher in science, dedicated to his students, and possessed that ability to gain their complete confidence and to inspire them to achieve the maximum in their endeavors. He was also co-author with Ira C. Davis and John Burnett of three widely used textbooks in junior high school science. He was the physics editor of "School Science and Mathematics," monthly journal of the Central Association of Science and Mathematics Teachers, had served four years on the Association's Advisory Board, and at the time of his death he was chairman of its Policy and Resolutions Committee.

The son of a Methodist minister, he was born on March 31, 1916, in St. George, West Virginia. He graduated from Hopedale, Illinois, High School in 1934 and received both the bachelor's degree in 1940 and the master's degree in 1946 from the Illinois State Normal University. In 1946 he became a member of the Indiana University School of Education faculty as an instructor and critic teacher with physics as his particular interest. Later he was made chairman of the University High School science department. Before coming to Indiana he had taught six years in Illinois high schools, two years, 1940-42, at Straughn and four years, 1942-46, at Blue Mound. He had completed most of the requirements for the doctorate in Education at Indiana University before his death.

Mr. Gross was a member of the American Association for the Advancement of Science, National Association of Student Teachers, National Science Teachers Association, Indiana State Teachers Association, Bloomington Metropolitan Teachers Association, and Phi Delta Kappa national education fraternity. He joined the Indiana Academy of Science in 1947 and cooperated with the Academy in its Junior Academy work. One of his finalists in the Science Talent Search, Roger Cuffey, was president of the Junior Academy in 1956 and he and other finalists gave papers on the Junior Academy programs. In 1956 Mr. Gross founded the Summer Institute for High School Science Students on the campus at Indiana University. He was a member of the Masonic Lodge of Blue Mound, Illinois, and the Methodist Church.

He was interested in many things such as growing fine flowers and vegetables in his garden, raising chickens and turkeys for home use, working in his woodworking shop. He had just finished making a Nativity Scene for his yard a few days before his brief final illness and his death on Christmas Day, 1958.

He was happiest when he could help his students in science and advise them in choosing scientific careers and, following his death, he was paid many tributes by former students and parents of students. In his memory the E. Wayne Gross Science Scholarship Fund was established by his wife, Lucile C. Gross, whereby under the supervision of the Indiana University Foundation two \$500 scholarships will be available annually to senior science students of the University High School. The Fund is financed through royalties from his textbooks and gifts of former students, colleagues and friends.

ROBERT EARL MARTIN

Monroe County, Indiana
August 18, 1894

Madison, Indiana
June 27, 1959

When the history of Hanover College for the past thirty years is written describing Hanover's substantial growth and the expansion and development of its beautiful campus the names of two men will certainly stand out. They both came to Hanover in the same year and the earthly work of both ended within a two-year period. Hanover's great president, Albert G. Parker, arrived on the campus in August, 1929, and his first official act was to send a telegram to Robert Earl Martin asking him to be professor of physics. Dr. Martin accepted and arrived on the campus late in August. Dr. Parker, who proved to be a genius at raising money for Hanover College, came to Hanover after a distinguished educational career in China and Japan. Dr. Martin, a native Hoosier, returned to his home state after spending eleven years teaching physics in Lehigh University. Hanover College was destined to receive a complete physical rehabilitation and an educational quickening.

R. Earl Martin was born in Monroe County, Indiana, on August 18, 1894. Following his graduation from high school he met the Indiana teacher requirements and taught in the Monroe County schools from 1912 to 1915 and in Montmorenci, Indiana, High School the next year. He completed the work for the A.B. degree at Indiana University in 1917. After teaching one year in the Clayton, New Mexico, High School he accepted an instructorship in physics at Lehigh University in 1918 and was promoted to assistant professor in 1921. Eight years later he came to Hanover and remained there until his retirement in June, 1959. While he was at Lehigh he received its M.S. degree and in 1925 Indiana University conferred the Ph.D. in physics on him. Less than a month after his retirement he died in a Madison hospital on June 27, 1959, after a brief illness.

When Dr. Martin went to Hanover he found a college enrolling about 500 students, ill equipped in both buildings and laboratory facilities. He had spent the immediately preceding summer as an acoustical engineer with the American Telegraph and Telephone Company in New York City and at Hanover he found the physics department located in small quarters, the laboratory with meager equipment, and a physics enrollment of about twenty students. He vocally expressed his dissatisfaction with what he found wrong not only with his department but with other things around the college and finally accepted President Parker's challenge in the spring of 1930 to take over as manager and superintendent of buildings and

grounds without pay. For the next ten years he had oversight of all the improvements and maintenance on the campus in addition to teaching not less than 18 hours a semester. He received some compensation during the last three years of this service due to the improved financial condition of the college.

He surveyed and mapped the campus, supervised the bringing of 3,300 trees from Indianapolis to be planted on the campus, installed coal stokers in most of the buildings, replaced the 2 horsepower pump of the then existing college water system with two 40 horsepower and one 7½ horsepower pumps, used a WPA force of 100 students to grade the athletic field, build the track and fence in the field, laid walks on the campus, installed street lights and surveyed roads through the campus, and looked after the plumbing, heating, lighting, repairing and cleaning of the college buildings and faculty residences owned by the college. He was able to do this through the efforts of Dr. Parker in securing gifts of money to the college, in particular from the steel magnate, William H. Donner, who gave Hanover \$20,000 in 1937 to be used in drawing up plans for the campus and followed this with challenge gifts of \$250,000, \$500,000 and \$250,000, which were met by alumni, trustees and friends of the college.

He staked out the new buildings in 1945 and derived great pleasure in planning the layout for the physics department in the new science building, Goodrich Hall, completed in 1947, with two large laboratories, lecture room, library and office, workshop, three darkrooms, storage room and \$30,000 worth of physics equipment not including war surplus supplies received by the college.

During twenty-eight of his thirty years at Hanover Dr. Martin taught all the physics and during the five World War II years he taught mathematics also. He was an excellent teacher who kept up to date and he taught with a realistic approach. He taught seven summers at the University of Louisville, one summer at the Indiana University Extension Center in Jeffersonville, and for seven years he was science-mathematics technician in ballistics at the Jefferson Proving Ground.

Dr. Martin was a member of the American Association for the Advancement of Science and the American Physical Society. For 20 years he was secretary of the Indiana State Physics Teachers Association and he served as its president for one year. He helped to organize chapters of Sigma Xi and Sigma Pi Sigma physics society at the University of Louisville, and he served for sixteen years as faculty adviser to Lambda Chi Alpha social fraternity at Hanover. He joined the Indiana Academy of Science in 1925 and was made a Fellow in 1947. He was active in Academy work, serving on various committees, and, at the time of his death, he was a member of the Junior Academy and Membership committees. He was Chairman of the Physics Section in 1941 and 1945. He did some research and presented the results to the Academy and he published several papers in the Proceedings.

An active worker and deacon for 17 years of the Hanover Presbyterian Church, he taught a Sunday School class for a number of years and also served for a time as superintendent. He was a 32° Mason and a past master of the Hanover Masonic Lodge and its secretary for eighteen years.

Dr. Martin lived an effective life of service to Hanover College and Indiana education, and the Academy has lost a most active, loyal and dependable member.

KARL WILHELM MEISSNER

Reutlingen, Germany
December 15, 1891

Died at sea
April 13, 1959

Thirty years ago the United States was passing through one of the worst economic depressions in its history and before the next decade had passed Europe was experiencing political upheavals and World War II had begun. The rise to power in Germany of Adolph Hitler led to mass emigration as well as numerous emigrations of individuals who fled for safety or left because they could not accept the doctrines propagated by Hitler. Among these individuals were numerous scientists who came to the United States rather than submit to tyranny. Karl Wilhelm Meissner, Director of the Physics Department at the University of Frankfurt am Main, Germany, and one of the present century's outstanding scientists, refused to compromise the basic principles of democracy and human freedom and was dismissed by the Nazis in 1937. He came to the United States the next year as an assistant professor of physics in the Worcester Polytechnic Institute, Worcester, Massachusetts, remaining there three years. In 1941 he was invited by Dr. Lark-Horovitz to come to Purdue as visiting professor of physics. Following his naturalization in 1943 he was appointed to the permanent position of professor of physics in charge of the spectroscopic laboratory. He was already known internationally for his work when he came and he further enhanced his reputation by his discoveries while at Purdue. He was on sabbatical leave from Purdue and was returning to Europe to see his sister and to visit several scientific laboratories, present a paper at the International Symposium on Interferometry in June at Teddington, Middlesex, England, and spend the summer term at the University of Kiel, Germany, as visiting lecturer in spectroscopy, when he was stricken with a fatal heart attack on April 13, 1959, while at sea aboard the Cunard Liner, Ivernia.

Dr. Meissner was an experimental physicist with a wealth of creative ideas and deep insight into spectroscopic problems which enabled him to analyze a problem and attack it with keen confidence and skill that generally led to its solution. He was a master at unravelling the complexities of the rare gases. In 1935 he developed his own atomic beam method for studying hyperfine structure and with utmost patience, precision and ingenuity he utilized the interference methods for extremely accurate measurements of light waves. As a student in 1914 he was the first to prove experimentally the existence of oxygen on the sun and in 1933 he proved the same for sulfur. From 1942 on he was interested in developing the atomic beam light source to produce a primary standard of length and to solve problems related to the nuclear spin and magnetic moments. The property of perfect diamagnetism in metals at finite temperatures is known as the Meissner effect.

He was the author or joint author of more than 60 articles in American and German scientific journals on "the theory of optical instruments, the precision measurement of wave lengths, regularities in spectra, term

analysis of spectra, hyperfine structure, isotope shift, Stark and Zeeman Effect, lifetime measurements of metastable atomic states, and gaseous discharge phenomena." He also wrote book reviews and was author of a book on spectroscopy and did consulting and editorial work. Dr. Meissner was active in the Indiana Academy of Science, presenting the first of eight papers before the Physics Section in 1946 and the last in 1958. Six of these papers were joint reports and abstracts for all eight papers appear in the Proceedings of the Academy.

Dr. Meissner was born on December 15, 1891, in Reutlingen, Germany, and attended the schools there. In 1910 he began his studies in physics and mathematics at the University of Tuebingen and also did some work in the University of Munich in 1912 and received the doctorate in 1915 from Tuebingen. He worked under the internationally known physicists Paschen, Roentgen and Sommerfeld. Following a brief period as an instructor in the high school at Stuttgart, he became an assistant in the Department of Physics at the University of Zurich and was promoted to Privatdozent in 1919. He accepted an associate professorship in 1925 at the University of Frankfurt, was promoted to a professorship in 1928, and became Director of the Physics Department in 1931. Dismissed by the Nazis in 1937, he came to the United States in 1938.

Besides his memberships in foreign scientific societies Dr. Meissner was a member of the American Physical Society, Optical Society of America and Sigma Xi. He became a member of the Indiana Academy of Science in 1945 and was made a Fellow in 1953. He served as joint chairman with Dr. Ed F. Degering, in 1946, of the Chemistry-Physics Section. He was listed in Who's Who in America and American Men of Science. Following his death he was honored at a special colloquium at the Johann Wolfgang Goethe University at Frankfurt on July 15, 1959, at which Professor R. Moufang spoke about Dr. Meissner's life and work.

Dr. Meissner supervised the work of a number of candidates for the doctorate in physics at Purdue to whom he was able to convey his enthusiasm for scientific research. Despite his apparent feeling of urgency in his own work he was nevertheless patient and considerate in counseling his students in their research efforts.

He was a scholar who not only knew his science and its literature but he was proficient in history, literature and the languages. He spoke and read German, French, Italian and English and he read Latin, Greek and Hebrew. He was a deeply religious man and an ardent student of the Bible who could quote long passages from the scriptures. He held deep convictions on human rights and the freedom of the individual and he had the courage to speak and act in accord with his convictions. A gentle and kindly man with a deep concern for the wronged individual or the underprivileged group he lived and worked for the betterment of humanity. The nation and state as well as Purdue have lost a truly great scientist and citizen.

THOMAS BENJAMIN NOBLE

Indianapolis, Indiana
January 21, 1895

Laguna Beach, California
December 9, 1958

"Dr. Tom Noble was a rebel. He was an individualist. He was a

genius. He was warmhearted and kind, a cool thinker, a great doctor. But more than that he was a greathearted human being."

Thomas Benjamin Noble represented the fourth generation of a family of Indiana physicians and he bore the same name as his father and grandfather. He was born in Indianapolis on January 21, 1895. Following his graduation from Shortridge High School in 1912 he attended Wabash College for one year and then transferred to the University of Wisconsin and later to the University of Pennsylvania. In completing the requirements for a medical course he received the B.S. degree in 1916 from Washington University and the M.D. degree in 1917.

On May 11, 1917, he volunteered for army service and enlisted as a private, 2nd class. He was assigned to a British General Hospital and saw service in the Passchendale campaign, June to November, 1917, where the first mustard gas attack of World War I occurred and he helped in the research that discovered protective and preventive measures against the gas. While in the service he saw the almost 100% mortality due to disseminated peritonitis and the suffering from the adhesions due to peritonitis and he determined to do something about it. Following his discharge in 1919 as a 1st lieutenant he proceeded to devise an operation which he named plication and used it for the first time on a human patient in 1920 at St. Vincent's Hospital in Indianapolis. The operation was successful and the plication technique came into almost universal use. Dr. Noble succeeded in returning to normal health 96% of his patients suffering from adhesions due to peritonitis. The operation was named the "Noble Plication" by the University of Arkansas, and Dr. Thomeret of Paris, France, named the condition in which intestinal adhesions caused obstruction "Noble's Disease." The Noble Plication was the first of 45 original techniques contributed to medicine or surgery by Dr. Noble. Among them were methods for performing certain abdominal operations by means of incisions that do not cut across trunk muscles, methods of safely uniting the intestine in the presence of peritonitis or obstruction, treatment of generalized peritonitis following war wounds of the small intestine that reduced the mortality from 100% to 4%, methods of restoring ligamental structure in the pelvis following hysterectomy, gall bladder operations and other similar operations, and numerous other improvements in surgical methods. Dr. Noble was a master surgeon.

He wrote many papers discussing his methods and the results of their use which were published in the leading national and international medical journals and he wrote one book "Peritonitis and Its Aftermath." In 1957 he began publication of a Medical Journal of Correspondence which he called "Prologomena Medica" with the motto "Truth lies at the end of the road called 'Controversy,'" and in which controversial and new things in medicine were discussed. It was published monthly in his basement and sent to over 500 physicians and surgeons all over the world and elicited a tremendous response, involving contributed articles and hundreds of letters. An assistant translated the foreign correspondence. He was an excellent photographer and he made photographic records of intricate operations and arranged for their use at schools and conferences of surgeons here and abroad. He originated the Sound Division of the International College of Surgeons in 1945.

Dr. Noble joined the Indiana Academy of Science in 1935 because of his intense interest in archaeology and anthropology. He became interested in Indians in 1915 and first visited the Hopi Indian tribe in 1916. From then on he became the firm and devoted friend of Hopi and Navaho tribes who learned to trust and honor him. Over the years he actively fought for their rights. At the request of the Navaho Council he wrote the Navaho Message to Congress that brought relief from many wrongs suffered by those Indians. Through his efforts and the help of two prominent Arizona friends the land rights of the Hopis were restored to them. In 1952 the governor of Arizona appointed him health consultant for all the Indians of the state. He and Mrs. Noble spent much time in the Southwest recording on film and tape the folklore, songs, religious festivals and dances of the Navahos and Hopis. He reported his results at anthropological meetings. Over the years he presented seven papers before the Academy's Anthropology Section but he did not publish any of his results in the Proceedings of the Academy. In gratitude for his service to them the Indians presented to him numerous tokens and he was often a guest at their religious and other tribal ceremonies. He became interested in the Hopi Indians in his study of cliff dwelling peoples.

Dr. Noble was a Fellow of the International College of Surgeons and the American Board of Surgeons, and the Indiana Academy of Science made him a Fellow in 1956. He was a member of the American and Indiana Medical Associations, Indianapolis Medical Society, American Anthropological Association, New Mexico Historical Society, American Legion, Phi Delta Theta, and the Service, Torch, Literary, Camera and Contemporary Clubs of Indianapolis. He had served on the boards of directors of Flanner House, in Indianapolis, Marion County Red Cross, and Torch International, and he was a Regent International of the College of Surgeons.

Early in December, 1958, he and Mrs. Noble had gone to Laguna Beach, California, on a vacation, but a week after their arrival he was stricken with a heart attack that ended his life on December 9.

Thomas B. Noble was an aggressive leader who had the courage of his convictions. He was a humanitarian who not only healed bodies but also fought for human rights wherever he observed wrongs. This memorial began with a paragraph quoted from an editorial in the Indianapolis Star about him after his death. Following is the closing paragraph of that editorial: "There are many songs of praise we who knew Tom Noble could sing of him. But Tom was the kind of man who never sought praise for himself and would no doubt be embarrassed by it. So we will say only this: If ever a man lived up to the proud name he bore it was Tom Noble—a truly noble man."

WILLIAM EMIL RIECKEN

Mt. Vernon, Indiana
January 23, 1892

Jackson, Mississippi
January 21, 1958

The trend in the American teaching profession is toward high specialization, be it for teaching in the kindergarten, high school or a special branch of botany, mathematics, etc., in the college or university. The time is probably not far off when special training will be required for eligibility

to become a dean or college president. Then it will be very unusual to find a teacher who has taught in the grades, high school and college and has finally become a dean. Such a teacher was William Emil Riecken who taught all the grades in the rural schools of Posey County, Indiana, from 1911 to 1914, several grades in the Mt. Vernon, Indiana, schools during the next three years, became a teacher in the Mount Vernon Junior High School for three years and was its principal the fourth year. After serving four years, 1924 to 1928, at Indiana University in the Botany Department, the last three years as an instructor, he was appointed Assistant Professor of Botany at Ohio Wesleyan University in 1928, then Head of the Biology Department at Millsaps College in 1934 and finally Dean of the College in 1939.

In the first decade of this century the legal school year in Indiana was six months long and, while most schools were held open longer than this minimum, the educational situation was such that the enrollment in the Spring Quarter at the Indiana State Normal School at Terre Haute was three to four times as great as in the Fall and Winter Quarters. This was due to the further fact that the State began requiring first twelve weeks or one quarter of designated teacher training and this was gradually extended to two quarters, three quarters, and so on as the years went by. Previously most teachers began teaching as soon as they had finished high school and were able to pass the State Teachers' Examinations held at stated times. Thus William E. Riecken began teaching when he was nineteen years of age. He first attended Oakland City College in 1911 and then went to the Normal School at Terre Haute for a term or two in each of the years 1912, 1914 and 1916, to meet the increasing teacher's requirements. His professional progress was interrupted during the years 1917 to 1919 when he served in the Field Artillery in World War I. Following the war he finally completed the requirements for the B.A. degree at Indiana University in 1923. The next year he was principal of the Mt. Vernon junior high school. He accepted an assistantship in the Botany Department at Indiana University in 1924 and received the A.M. degree in 1925. He then became an instructor during the next three years and completed the requirements for the Ph.D. in 1928. It was not uncommon in those days for one to work one's way through college and graduate school and the result was generally a mature, thoroughly trained teacher with both experience and knowledge of subject matter such as was possessed by William E. Riecken.

He was born in Mt. Vernon, Indiana, on January 23, 1892, and practically spent his whole life in the classroom working with young people. While at Millsaps College he was active in the YMCA and the Boy Scouts, teaching nature study at their summer camps and otherwise helping these organizations. However, he taught botany in the summer at Agriculture and Mechanics College of Texas in 1925, Indiana State Normal School, now Indiana State Teachers College, in 1927 and 1931, and Evansville College in 1932. In 1954 ill health forced him to take a leave of absence and he was never able to resume his regular work. He was able, however, to pursue his hobbies of plant collecting, some carpentry, and painting landscapes in oil. He died in Jackson, Mississippi, on January 21, 1958, just two days before his sixty-sixth birthday.

While at Indiana University he joined the Indiana Academy of Science in 1923 and as long as he was in the State he attended the Academy meetings, especially the Spring Meetings. In 1926 he joined the American Association for the Advancement of Science and after he went to Ohio Wesleyan he was active in the Ohio Academy of Science, and he was made a Fellow in the A.A.A.S. in 1933. After going to Mississippi he became a member of the Mississippi Academy of Science and was its president in 1945-46. He was also a member of Phi Beta Kappa, Sigma Xi, Omicron Delta Kappa leadership fraternity, Phi Delta Kappa education fraternity and Alpha Epsilon Delta premedical fraternity. He was listed in Who's Who in America, Leaders in Education and American Men of Science.

Dr. Riecken was active in church work and taught a men's Bible class in Jackson for fourteen years. He was listed in Who's Who in Methodism. He was a member of the Civitan service club. As an excellent teacher, able administrator, fine citizen and Christian gentleman, he lived a most useful and effective life.

ARTHUR ROSENTHAL

Fuerth, Bavaria
February 24, 1887

West Lafayette, Indiana
September 15, 1959

During the past twenty years Purdue University has made tremendous strides in developing its mathematics offerings and has taken its place in mathematics among the leading universities of our country. Part of this is due to the change in attitude from being merely a service department to the engineering school to that of a field of study of fundamental importance in its own right. A second important factor is its success in having outstanding physicists who also were thoroughly familiar with mathematics as well as mathematicians with national and international reputations. Such a mathematician was Arthur Rosenthal, a native of Germany and a victim of Nazi intolerance, who came to America from the Netherlands in 1940 and became a citizen of the United States in 1945.

Arthur Rosenthal was born in Fuerth, Bavaria, Germany, on February 24, 1887. His keen intellect carried him through the German schools to the doctorate, a Ph.D. in mathematics, at the University of Munich in 1909 at the age of twenty-two. During the following two years he served as an Assistant in the Technische Hochschule in Munich and he spent the year 1911-12 in post-doctoral study in the University of Goettingen. Following his term of duty in the German Army he became a Privatdozent in the University of Munich, was promoted to an assistant professorship in 1920 and two years later was called to the University of Heidelberg as an associate professor. He was promoted to a professorship in 1930 and made Director of the Mathematical Institute. In 1932 he was elected to serve a one-year term as Dean of Science. Nazi racial prejudice forced his retirement in 1935 and he became an emeritus professor at the age of forty-eight, at the height of his power as a scientist. Then followed several years of anxiety and the search for a new home. He escaped to America but his personal library, which was ready for shipment to America, was destroyed in the ruthless bombing of the city of Rotterdam by the Germans. Following his arrival in America he became a Lecturer and Research Fellow at the University of Michigan for the year 1940-41, and, in

1942, he was appointed a Lecturer in mathematics at the University of New Mexico. He was made an assistant professor in 1943 and an associate professor in 1946. The following year he was invited to Purdue as a professor of mathematics and he spent ten happy years there until his retirement as an emeritus professor in 1957. During this period he served as Acting Head of the Department of Mathematics for the year 1955-56. He passed away in his sleep on September 15, 1959.

Dr. Rosenthal was a mathematician with an international reputation. He was author or joint author of nearly forty articles or monographs in the fields of "classical geometry, differential geometry, ergodic theory, set and measure theory, functions of real and complex variables, number theory, didactics and history of mathematics," and extensive articles in the *Encyklopaedie der Mathematischen Wissenschaften*. He collaborated with L. Zoretti, P. Montel and M. Frechet in the work *Untersuchungen uber Functionen reeler Veranderlichen*, in 1924, and with M. Hahn in 1948 on a monograph on *Set Functions*. He also wrote many reviews for both American and foreign mathematical journals and he helped to edit an important posthumous work on measure and integration by his friend, the internationally known C. Caratheodory. He had studied under the great German mathematicians Lindemann, Pringsheim, Sommerfeld and von Weber, and throughout his life he carried on correspondence with other leading mathematicians.

Besides his membership in the *Heidelberger Akademie der Wissenschaften*, he was a Fellow of the American Association for the Advancement of Science and a member of the American Mathematical Society, Mathematical Association of America, American Association of University Professors, Sigma Xi, Phi Kappa Phi, Kappa Mu Epsilon and Sigma Pi Sigma. He was listed in *Who's Who in America* and *American Men of Science*. He joined the Indiana Academy of Science in 1947 and was active in its work, serving as Chairman of the Mathematics Section in 1953, and presenting several papers, abstracts of which appear in the *Proceedings of the Academy*.

Dr. Rosenthal was a member of Temple Israel in Lafayette and he was a liberal contributor to the philanthropic and education work of the Federation of Jewish Charities of Greater Lafayette.

He was a most charming man and an outstanding lecturer and teacher who had supervised the work of a number of candidates for the doctorate both abroad and at Purdue. At meetings of the Academy and the national and state meetings of the mathematical societies he was recognized as a fine mathematician and a gracious and friendly colleague. The Academy, Purdue and the State of Indiana have lost a splendid educator and citizen.

WILLIAM HENRY SHIDELER

West Middletown, Ohio
July 14, 1886

Oxford, Ohio
December 18, 1958

One or more members of the Faculty of nearly all colleges and universities have become so associated with the institution over a long period of time that the results of their work have become outstanding and they are known to a wide circle of colleagues, alumni and friends of the institution as a "grand old man or woman of the college." William Henry Shideler

was one of the "grand old men" of Miami University, Ohio, whose whole undergraduate and professional life before retirement had been spent at that university.

Born in West Middletown, Ohio, on July 14, 1886, he entered Miami University in 1903 and graduated in 1907 with the A.B. degree. He spent the next three years at Cornell University as a graduate assistant working on the Ph.D. degree in paleontology which he received in 1910. He returned to Miami as an instructor in zoology and geology, was promoted to assistant professor in 1911, associate professor in 1919, and to Professor of Geology in 1920 with the establishment of a separate geology department. He retired in 1957 as professor emeritus. The year following his retirement he spent in setting up a geology department at Hiram College on a John Hay Whitney grant for retired professors. After completing this work he returned to Oxford where he died a few months later on December 18, 1958, following a cerebral hemorrhage five hours earlier.

While an undergraduate he was one of the four students who founded the Phi Kappa Tau social fraternity on March 17, 1906, which became the fourth national social fraternity to be founded at Miami University. Since its foundation this fraternity has had its Central Office in Oxford, and Dr. Shideler had at one time or other held each of its national offices and he had been its comptroller since 1929. The day before his death he had been to the Central Office to sign vouchers.

Dr. Shideler was widely known in intercollegiate athletics. As an undergraduate he had been a varsity distance runner, and as faculty member he had served as a timer or judge at Miami track meets for nearly a half century. From 1918 to 1956 he was a member of the Miami Athletic Advisory Board and served as its chairman most of those years. He was the faculty representative of Miami to the old Buckeye Conference and to its present successor, the Mid-American Conference, of which he was chairman in 1951-52. He attended numerous meetings of the National Collegiate Athletic Association as the Miami representative.

Dr. Shideler was a practical geologist as well as a fine teacher and researcher. He had served as a field geologist of the Ohio and Kentucky Geology Surveys for a total of nine summers. His principal interests were in Ordovician paleontology and stratigraphy and his fellow geologists had named a number of fossil discoveries for him.

He joined the American Association for the Advancement of Science in 1912 and was made a Fellow in 1921. He was also a Fellow of the Geological Society of America, Paleontological Society and the Ohio Academy of Science. He was vice-president of the Ohio Academy in 1925-26 and its president in 1951-52. He was president of the Association of Geology Teachers in 1954-55 and was a member of Eugenics Society, American Association of University Professors, Phi Beta Kappa, Sigma Xi and Omicron Delta Kappa. He was vice-president of Sigma Gamma Tau geology, mining and metallurgy fraternity in 1954-55. He joined the Indiana Academy of Science in 1929 but he had not been active in its work. He was also a 32° Mason and a Shriner.

Dr. Shideler was listed in *Who's Who in America* and *American Men of Science* and he was recipient of the Neil A. Miner Award in 1954.

At a dinner honoring him at the time of his retirement in 1957 a

number of his colleagues and former students set up a scholarship fund in his name and he responded by offering to match their contributions up to the amount of \$3,000.

Certainly William H. Shideler will always be listed at Miami University as one of its "grand old men."

RALPH W. SHOWALTER

Fremont, Nebraska
September 1, 1885

Miami, Florida
March 24, 1959

It is the policy of great corporations like General Motors, International Business Machines and others to keep alert for the aptitudes of their young employees. Those who show unusual research, administrative, sales or other abilities are carefully trained and promoted as their talents develop and mature. This is particularly true of the great pharmaceutical firm of Eli Lilly and Company.

Ralph W. Showalter, who joined Eli Lilly and Company in November, 1909, less than six months after he had graduated from Purdue with a B.S. degree in chemistry, started to work as an analytical chemist. Before joining Lilly he had spent three months as an assistant in chemistry at Purdue and two months as a chemist with the Inland Steel Company in South Chicago. For a time at Lilly's he continued his work in chemistry, moving up through the positions of alkaloidal chemist and research chemist. He then was associated with J. K. Lilly, Jr., in the organization of the efficiency department for the company. When the company entered the field of biologicals Mr. Showalter was selected as one of the early superintendents of production and later was appointed director of the biological division.

Following the end of World War I Eli Lilly and Company began a period of expansion into export fields and, in 1923, Mr. Showalter was named manager of the foreign sales department. This entailed world-wide travel and he went around the world several times representing the company and appointing distributors in South America, Mexico, Europe, Africa and the Far East. Some twenty years before his death in Miami, Florida, on March 24, 1959, he was stricken with diabetes which led to his retirement from active duty in 1944 after thirty-five years of service.

Mr. Showalter was born in Fremont, Nebraska, on September 1, 1885. After graduating from West Lafayette High School he entered Purdue in 1905 and graduated in 1909.

He was a member of Tabernacle Presbyterian Church in Indianapolis. He also held membership in the Surf Club, University Club, Woodstock Club and Indianapolis Athletic Club. He joined the Indiana Academy of Science in 1915 while he was working in chemistry and he maintained a continuous membership for forty-four years despite the fact that his major interests were in other fields.

Mr. Showalter's great contribution in the development of the export of pharmaceutical products to foreign lands not only served his company well but also enabled many peoples in foreign lands to lead happier and more healthful lives.

RALPH BUSHNELL STONE

Templeton, Massachusetts
June 4, 1882

West Lafayette, Indiana
February 27, 1959

During the school year 1906-07 two students doing advanced study in mathematics at the University of Munich, Germany, met. One was Arthur Rosenthal, a German, and the other was Ralph Bushnell Stone, an American, who had spent the preceding year in advanced study of mathematics at the University of Turin, Italy. Forty years later, after two World Wars, they were to meet again as colleagues in the Mathematics Department at Purdue University, and fifty-two years later, as emeritus professors at Purdue, they both died in West Lafayette, Indiana, within a few months of each other.

Ralph Bushnell Stone was born on June 4, 1882, in Templeton, Massachusetts. He received the A.B. degree from Bowdoin College in 1902 and then entered Harvard University where two years later he got the A.M. degree. He continued his study at Harvard for a third year and then went to Europe for two years of study, one year each at the universities of Turin and Munich. On his return to America in 1907 he taught mathematics and physics as an instructor at Bowdoin College for four years and then returned to Harvard for another year of study. In 1912 he accepted an instructorship in mathematics at Purdue. Two years later he was promoted to assistant professor and appointed assistant to the Registrar. He was made Registrar in 1918 and did not retire from this office until 1947. He became an associate professor in 1922. After retiring as Registrar he continued to teach in the Mathematics Department until his retirement in 1952 as Emeritus Professor of Mathematics.

As Registrar he served as ex-officio Secretary of the Faculty and he continued to serve in this capacity after relinquishing his duties as Registrar until his retirement. He was also secretary of the Executive Committee of the Faculty for many years. In 1924 a special Faculty committee was set up to develop graduate study at Purdue which led to the organization in 1929 of the Graduate School under the supervision of a Graduate Council. Professor Stone served as secretary of the special committee and of the Graduate Council for many years.

Because of his duties as Registrar Professor Stone taught only part time. His excellent broad training in mathematics made him an effective teacher. As an administrator he was most capable, honest and fair.

While a student at Bowdoin he was elected to Phi Beta Kappa in 1901. He had been a member of both the American Mathematical Society and the Mathematical Association of America for more than forty years. He was an honorary life member of the American Association of Collegiate Registrars and Admissions Officers and a member of the American Association of University Professors. He joined the Indiana Academy of Science in 1914 and attended its general meetings when his duties would permit. He served as chairman of the Mathematics Section in 1936.

Professor Stone was a scholar with a keen interest in and appreciation of literature, music, art and world affairs. After his retirement he enjoyed working in his garden and growing beautiful roses. He derived great pleasure listening to fine music on his hi-fi set.

Although he had been seriously ill several different times after his

retirement and although not well he had been fairly comfortable his last two years. He died suddenly and unexpectedly of a coronary occlusion in his home on February 27, 1959.

AGNES ERMINA WELLS

Saginaw, Michigan
January 4, 1876

Saginaw, Michigan
July 6, 1959

Not many women have become outstanding in science but the Indiana Academy of Science has had several women members who became widely known either as scientists or for distinguished service in other fields. One of the 69 Founders of the Academy was Lillian Jane Martin who long before her death in 1943 at the age of 91 had been Professor of Psychology at Stanford University under David Starr Jordan and was recognized at that time as one of the leading psychologists in the United States. With the death of Agnes Ermina Wells in Saginaw, Michigan, on July 6, 1959, at the age of 83, the Academy lost another outstanding woman member who was trained in mathematics and astronomy but became nationally known as a Dean of Women at Indiana University. She joined the Academy in 1924, five years after coming to Indiana University.

Dean Wells was born in Saginaw, Michigan, on January 4, 1876. After completing her public school education she attended Bryn Mawr College for one year and then enrolled at the University of Michigan and received the A.B. degree in 1903. She was Principal of the Crystal Falls, Michigan, high school for the year 1904-05 and the next year she went to Duluth, Minnesota, as a teacher of mathematics in the high school and was Head of the Department of Mathematics from 1907 to 1914. She then began work on the M.A. degree at Carleton College and received it in 1916 after serving as an instructor in mathematics in the College for the year 1915-16. In 1917 she made a decision that changed the whole course of her life. She accepted the position of Social Director of the Helen Newberry Residence, a dormitory, at the University of Michigan and was acting Dean of Women in the summer of 1917 and the year 1918. At the invitation of President William Lowe Bryan she came to Indiana University in 1919 as Dean of Women and served in this capacity until retirement at her own request in 1938. She remained at the University until 1944 as Professor of Mathematics and Astronomy and then retired as Dean of Women Emerita. While at Indiana University she completed requirements at the University of Michigan for the Ph.D. degree in astronomy which she received in 1924.

At the University of Michigan in 1918 Dean Wells helped to found Mortar Board when representatives of women's honoraries at Swarthmore College, Cornell University, Ohio State University and the University of Michigan met at Syracuse, New York, to form a national honorary for senior women. At Indiana University she helped to found the chapter of Mortar Board there in 1921 and served as an adviser until her retirement.

Dean Wells is generally credited with establishing the women's dormitory system at Indiana University. At her retirement in 1944 President Herman B Wells stated: "For 20 years Miss Wells has been more than Dean of Women. Not only has she discharged the routine duties of her office with extraordinary skill and great success, but she has worked

diligently to further the program of education here and elsewhere. The beginning of our dormitory system is generally attributed to her far-sighted and energetic leadership. Throughout all her administration she has maintained standards of scholarship and character of very high order."

She had an outstanding record of leadership in women's club work. While Dean of Women she served as president of both the Indiana and National Associations of Deans of Women and she was state president of the Business and Professional Women's Clubs. She was active in the D. A. R. and was Regent of the Bloomington Chapter in 1945-46. In 1943 she joined the National Woman's Party, with headquarters in Washington, D. C., and following her retirement she served for a number of years after 1945 on its National Council and as its president from 1949 to 1951.

She was a member of the American Astronomical Society, American Association of University Women, American Association of University Professors, National Education Association, Indiana State Teachers Association, Phi Beta Kappa, Sigma Xi, Iota Sigma Pi chemical sorority, Pi Lambda Theta education sorority, and Gamma Phi Beta social sorority. Dean Wells was also a devoted Episcopalian. For a number of years she was listed in Who's Who in America and American Men of Science.

Agnes E. Wells was a most talented woman with considerable scientific ability. However, she devoted most of her professional life to the guidance of college women students and the improvement of women's status in our complex American civilization. A woman of great integrity and deep sincerity, she left a lasting influence for good in the lives of the many thousands of humans with whom she worked.