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News and Notes

Meeting of the APS Division of Fluid Dynamics

THE divisional meeting of the American Physical Society Division of Fluid Dynamics met at The Pennsylvania State College, July 1–3, 1953. More than one hundred participants took part in the meeting and contributed to a lively discussion. Two symposia, one on hydrodynamics (J. H. McMillen, chairman) and another on rarefied gases (F. J. Weyl, chairman) were organized, each with three invited papers. Twenty-five contributed papers presented during three sessions (W. Bleakney, F. N. Frenkiel, and R. G. Stoner, chairmen) covered several problems in fluid dynamics including papers on transonic, supersonic and hypersonic flows, shock waves in solids and fluids, boundary layer and turbulence research, and several other topics.

After a banquet of the Division, an after-dinner speech on education and research in fluid dynamics was given by R. J. Seeger of the National Science Foundation.

During the symposium on hydrodynamics W. E. Cummins discussed the work done at the David Taylor Model Basin on forces and moments acting on a body in a time varying potential stream. The recent investigations made at the Iowa Institute of Hydraulic Research were described by J. S. McNown and the problem of the compressibility and thermal effects in cavitation was treated by F. R. Gilmore of the California Institute of Technology.

At the symposium on rarefied gases H. Grad of the New York University considered the validity of the Boltzmann equation, and experimental data on frictional phenomena in rarefied air, measured at the University of California at Berkeley, were reported by S. A. Schaaf. The hydrodynamical theory of absorption and dispersion of ultrasonic waves was the subject of a paper presented by C. Truesdell of Indiana University.

A. R. Kuhlthau reported on viscous drag measurements on a rarefied gas using the high rotational speed techniques developed at the University of Virginia. Hypersonic flow was discussed in three papers: S. I. Pai presented some theoretical results for an insulated flat plate at large angles of attack, F. K. Hill reported recent work on boundary layer flow at the Johns Hopkins Applied Physics Laboratory, and A. Hertzberg and W. E. Smith described the hypersonic facilities of the Cornell Aeronautical Laboratory. G. E. Solomon reported experimental measurements at transonic speeds made at California Institute of Technology, and some theoretical results for unsteady transonic flow were discussed by E. Mollo-Christensen. Work done at the Los Alamos Scientific Laboratory on shock waves in solids was the subject of two papers; one on an experimental method to determine the equation of state from shock wave measurements by R. H. Christian and J. M. Walsh, another on the separation of a shock wave into elastic and plastic waves by S. Minshall. Shock compression in ducts and diffusers was discussed by J. Lukasiewicz of the

National Aeronautical Establishment of Canada and further observations of shock refraction made in The Pennsylvania State College shock tube were presented by R. G. Stoner, E. B. Davies, and D. C. Peckham. A curious phenomenon of degeneration of a shock wave into sound was observed by E. F. Cox at the Nevada Proving Ground and the theory of the transmission of a sound pulse through a shock wave was re-examined by R. A. Alpher and R. J. Rubin. A somewhat related problem of pressure multiplication in reentrant corners was discussed by R. J. Heyman, A. Sherman, and T. Schiffman. From the Naval Ordnance Laboratory came two papers on supersonic flow: The first, by R. Lehnert and S. Hastings, concerned spin effects on base-pressure measurements; in a second paper the former author reported on the Reynolds number effects on spheres. Drag measurements, made in the Ballistic Research Laboratories pressurized range, were reported by V. E. Bergdolt and F. D. Bennett. An inexpensive Mach-Zehnder interferometer used in several shock waves studies at Princeton University was described by D. Weimer, W. Bleakney, and D. R. White. Some turbulence studies, made in France, were reported by J. Bass who has continued his work on space and time spectra during his visit at the University of California in Berkeley. The stability of isotropic turbulence was discussed by R. Betchov, and F. Gifford, Jr., reported on turbulent diffusion from a volume source with nonuniform initial distribution. The Pennsylvania State College Ordnance Research Laboratory contributed two papers on turbulent boundary layers: D. Ross treated the two-dimensional case and E. M. Uram the axisymmetric boundary layers in an adverse pressure gradient. Some problems concerning eddy thermodynamics were described by A. K. Blackadar and the unsteady flow of gas through porous media by J. S. Aronofsky. The production and measurement of surface ripples investigated at the University of Vermont was discussed by M. L. Walbridge, H. M. Smith, Jr., and L. A. Wood.

Several informal discussions on various other subjects interesting fluid dynamicists took place between the sessions.

Scientists in the News

Alan M. Chesney, Dean of the Medical Faculty of The Johns Hopkins University, since 1929 has retired as active head of the School of Medicine. Although giving up his administrative and academic duties, Dr. Chesney will continue his association with the Hopkins medical institutions in an emeritus capacity.

Dr. Chesney, a native of Baltimore, first came to the Hopkins as a student in 1905. He was graduated with an A.B. degree in 1908 and received his M.D. degree in 1912. He was intern and assistant resident at both the Johns Hopkins Hospital and the Hospital of the Rockefeller Institute in New York from 1913 to 1917. He joined the Army Medical Corps as a lieutenant in 1917, and after two years overseas service in France and Germany was discharged with the rank of major.

He was appointed Associate in Medicine at Washington University in St. Louis that same year, and remained until 1921 when he returned to the Johns Hopkins as Associate Professor of Medicine and physician on the senior staff of the Hospital. He was appointed Assistant Dean of the School of Medicine in 1927. In 1937, he was named President of the Association of American Medical Colleges. He served as President of the Medical and Chirurgical Faculty of Maryland in 1952–53. He is a member of the American Society for Clinical Investigation, Association of American Physicians, American Society Experimental Pathology, and the Baltimore City Medical Society.

Throughout his career, Dr. Chesney has been a militant leader for the maintenance of high academic standards in medical education for both students and faculty, and for freedom from restriction, whether from government or private sources, in the conduct of the medical schools and in scientific research. Respected by his colleagues and laymen for his "instinctive courtesy and capacity to be considerate of the other's point of view," he has never hesitated to voice his opinion to doctors, legislators, and laymen alike on matters he considered important to the continued provision of high quality medical care and education.

For many years, Dr. Chesney almost single-handedly battled anti-vivisectionist activities which he declared a "serious and crippling obstacle to the advance of medical knowledge." His untiring efforts led in 1949 to a concerted stand by the doctors at the Johns Hopkins and the University of Maryland School of Medicine against the anti-vivisectionists. Following stormy public hearings before the Baltimore Board of Estimates and the Baltimore City Council, the doctors were successful in their efforts to obtain unclaimed animals, otherwise doomed to die, from the city pound. In 1950, when the anti-vivisectionists took the fight before the public on a referendum question, he was one of the founders of the Maryland Society for Medical Research, composed of leading laymen and doctors, which battled the anti-vivisectionists to an overwhelming defeat at the polls.

For many years Dr. Chesney has been a forceful and prolific writer. He published a number of scientific articles and a book, *Immunity in Syphilis,* prior to assuming the office of Dean. Since then he has written many articles for both the scientific and lay press on medical matters. He composed a play on the early history of the Hopkins entitled, *The Flowering of an Idea,* which was staged on the fiftieth anniversary of the Hospital, and a fifty-page booklet on the same occasion outlining the progress and accomplishments of the institution to that time. He is at present engaged in completing the second volume of his *The Johns Hopkins Hospital and The Johns Hopkins Uni-*

versity School of Medicine, the first volume of which was published in 1943.

Dr. Chesney is succeeded as Dean of the School of Medicine by **Philip Bard,** Professor of Physiology and Director of the Department of Physiology Dr. Bard assumed his new position on July 1. In addition to his academic and administrative responsibilities as dean, Dr. Bard will continue in his present position in the Department of Physiology.

Robert C. Disque, Dean of the Faculty and since 1933 Dean of the College of Engineering at Drexel Institute of Technology, retired on August 31st. **Harry L. Bowman,** Head of the Department of Civil Engineering and a member of the faculty since 1926, has succeeded him in both posts. Dr. Disque, who has been associated with the Institute since 1919, has been named Dean Emeritus and Professor Emeritus of Electrical Engineering. He has long been a strong advocate of the coordination of professional studies in engineering with internships in industry under what has come to be known as the Cooperative Plan of Education, which has been followed by the Drexel College of Engineering since 1919.

Alfred S. Gaskell, a design engineer for the John Deere Tractor Co. in Waterloo, Iowa, has been appointed Associate Professor of Mechanical Engineering at West Virginia University.

Warren G. Hoag, Assistant Chief of the Department of Veterinary Bacteriology for the Army Veterinary Corps in Washington, has been named Professor of Animal Pathology at Virginia Polytechnic Institute Agricultural Experiment Station.

Joseph C. Hinsey, Dean of the Cornell University Medical College and Professor of Anatomy, has resigned to accept appointment as Director of the New York Hospital-Cornell Medical Center. Dr. Hinsey will succeed **Stanhope Bayne-Jones,** for the past six years President of the Joint Administrative Board of the Center. Dr. Bayne-Jones retired on June 30th to become Civilian Technical Director of Research of the Army Medical Research and Development Program.

Francis R. Holden, formerly of the U.S. Naval Radiological Defense Laboratory, San Francisco, has joined the chemistry staff of the Stanford Research Institute. A physical chemist, he will do atmospheric research and direct some of SRI's radiological programs.

Paul E. Klopsteg, Associate Director of the National Science Foundation and a member of the Board of Directors of the AAAS, and **Elvin C. Stakman,** Emeritus Professor of Plant Pathology at the University of Minnesota and a Past President of the AAAS, will serve as official Asociation representatives at the Fourth National Conference of the U.S. National Commission for UNESCO to be held at the University of Minnesota Sept. 15–17.

The University of Wisconsin has announced the resignation of **Jesse B. Kommers,** Professor of Mechanics and Chairman of the Department of Mechanics in the College of Engineering. Dr. Kommers has been on the University's staff since 1907. In the field of engineering he is particularly well-known for his work on the fatigue of metals. He was co-author of the first book on the subject in the U.S., a book that has been translated into many languages. He is also the author of a number of other volumes on engineering, and has published many technical and research papers.

Emil Kotcher, Associate Professor of Microbiology at the University of Louisville School of Medicine has been given a leave-of-absence so that he may accept an assignment with the U.S. Public Health Service as Laboratory Director of Parasitology for the Special Technical and Economic Mission (MSA) to the Associated States of Indochina.

William A. W. Krebs, Jr. has resigned from his position as General Counsel for the National Science Foundation. **William Jay Hoff,** former assistant to the Director of the Office of Defense Mobilization and administrator of the Defense Production Administration, has been appointed to fill the vacancy.

J. Oliver Lampen, formerly Associate Professor of Microbiology at Western Reserve University Medical School, has been appointed Director of the Division of Biochemical Research at the Squibb Institute for Medical Research, New Brunswick, N. J. This group is concerned with research in nutrition, endocrinology, and general enzymatic problems.

F. Benedict Lanahan has been appointed Professor of Occupational Medicine at The Woman's Medical College of Pennsylvania. Dr. Lanahan, who became Medical Director for The Electric Storage Battery Company of Philadelphia in November, 1947, has a wide experience in industrial medicine and has specialized in lead poisoning and cardiac rehabilitation.

T. A. Lincoln, a member of the Oak Ridge National Laboratory Health Division staff since 1951, has been appointed Director of the Health Division. He replaces **J. S. Felton,** who has left the Laboratory to accept a post in the Department of Medicine and Department of Preventive Medicine at the University of Oklahoma Medical School.

Joseph J. McDonald, Professor of Surgery at the Columbia University College of Physicians and Surgeons, has been appointed Dean of the medical school at the American University of Beirut. He succeeds Norman B. Nelson, who has resigned to become Dean of the medical school of the State University of Iowa (News and Notes, March 6). Dr. McDonald had previously served four years at Beirut.

William L. Madison has been appointed Manager of the Pharmaceutical Development Department of McNeil Laboratories, Philadelphia.

Carl Marks, President of the recently established Epilepsy Association of New York, has announced the appointment of **Harry Sands** as Executive Director. Formerly a faculty member of both New York University and Brooklyn College, Dr. Sands has served also as Director of the Committee for Public Understanding of Epilepsy.

Education

Three new research instruments—a wind tunnel, small water tunnel, and hydraulic system—are nearing completion at the **Pennsylvania State College.** The three will be used with the Garfield Thomas Water Tunnel. This giant tunnel, completed more than three years ago, is a testing instrument of the Ordnance Research Laboratory, and is used to study torpedo propeller-body systems. The new facilities not only will aid in this propeller research program, but also will permit important basic research in fluid mechanics. While the use of a wind tunnel to study hydraulic problems is a relatively new development, there are many advantages to using air instead of water as a testing fluid. Even in the study of cavitation effects, air studies are useful in evaluating cavitation potentialities. The wind tunnel also will be used for conducting pilot studies of various water tunnel problems and will make it possible to conduct these studies at less cost than if the large tunnel had to be used.

The **Rochester Institute of Technology** has been granted approval to conduct courses leading to the bachelor of science degree. Although details have not been completed, it is expected that students entering R.I.T. in the fall of 1953 will be able to continue study toward a bachelor's degree if they so desire.

The **University of Wisconsin** Board of Regents has approved a contract between the University and the governments of the U.S. and India, under which as many as 16 American engineering and technical educators will be sent to India during the next two years to help improve the engineering colleges of that nation. Total cost of the two-year program is not to exceed $680,000, all given to the UW by the U.S. Government through its Technical Cooperation Administration of the Point Four program. Under terms of the contract, the UW will establish an inter-university cooperative relationship with 7 engineering and technical colleges and institutes in India to aid them through a program to improve, strengthen, and expand the technical educational capacities of the Indian schools. The schools are the Bengal Engineering College of Sibpur, West Bengal; the Indian Institute of Science at Bangalore, Mysore; the College of Engineering and Technology at Jadavpur, Bengal; the Indian School of Mines at Dhanbad, Bihar; the Birla Engineering College at Philani, Rajasthan; the Mechanical and Electrical Engineering College at Sindri, Bihar; and the Roerkee University at Roerkee, Uttar Pradish.

Grants and Fellowships

The following **AAAS Research Grants** have been awarded:

R. B. Channell, Duke University, for his research project "Revisional Study of the Genus Marshallia."

Tom Daggy, Davidson College, for his research project "Survey of Microarthropods of Forest Soil and Litter."

Everett O. D. Tuneberg, North Dakota School of Forestry, for his research project "Utilization of Aspen in the Turtle Mountains."

The **American Heart Association** has marked its fifth anniversary as a voluntary health agency by awarding, jointly with its affiliates, an additional $473,930.59 for 89 research grants-in-aid in the field of heart and blood-vessel diseases. The latest awards increase to a grand total of almost $6,500,000 the sums spent for research studies by the American Heart Association and its affiliated state and local associations over the five-year period.

Applications are now being accepted for research awards to be made during the coming year. Applications for Research Fellowships and Established Investigatorships should be sent to the Association *by Sept. 15,* and applications for Research Grants-in-Aid should be filed *no later than Dec. 1.* Information and forms may be obtained from the Medical Director, American Heart Association, 44 E. 23rd St., New York 10, N.Y. The applications will be reviewed by the Research Committee of the Scientific Council. Established Investigatorships, which may be extended annually for a five-year period, range from $6,000 to $9,000. They are available to scientists of proven ability who are engaged in a research career. Research Fellowships, awarded for a one-year period, range from $3,500 to $5,500, and are open to persons interested in research and in an academic career. Grants-in-aid are of various amounts, usually not exceeding $10,000. They are made on the basis of specific, acceptable projects to experienced investigators working in non-profit institutions, medical schools, hospitals and laboratories, who have demonstrated their productiveness, or who otherwise give promise of accumulating useful new information.

The **Commonwealth Fund Fellows** who will be pursuing advanced scientific studies in the United States during the coming academic year are as follows:

General Fellowships

William Gilbert Chaloner, Demonstrator in Botany, Reading. To study paleobotany at Michigan.

Ronald James Gillespie, Lecturer in Chemistry, Unviersity College, London. To study the theory and experimental measurement of the dielectric properties of polar solids and liquids at Brown.

Hans Leo Kornberg, Research Fellow, Sheffield. To study biochemistry (the turnover of the 6-amino group at ATP) at Yale.

Peter Gerald Moore, Assistant Lecturer in Statistics, University College, London. To study the application of statistical methods to biology and ecology at Princeton.

Edwin Albert Power, Assistant Lecturer in Mathematics, University College, London. To investigate the property and behavior of mesons artifically produced by high energy particle accelerators at Cornell.

Geoffrey Colin Shephard, Lecturer in Mathematics, Bir-

mingham. To study modern algebraic geometry and abstract algebra at Princeton.

Roger John Tayler, research student, Clare College, Cambridge. To study theoretical astrophysics and observational astronomy at Princeton.

Raymond Lloyd Williams, St. John's College, Oxford. To undertake research in infra-red spectroscopy at the University of California, Berkeley.

Home Civil Service Fellowships

Benjamin Richard Feaver, District Forest Officer, Aberdeen, Scotland. To investigate the mechanization of forestry operations in the U. S., under the guidance of the U. S. Department of Agriculture's Forest Servcie.

Dominion Civil Service Fellowships

Henri Pieter Albert DeBoom, Lecturer in Embryology and Comparative Anatomy of Domestic Animals, University of Praetoria, South Africa. To study comparative anatomy at Cornell.

Colonial Civil Service Fellowships

Francis Alfred Loyd, District Officer, Provincial Administration, Fort Hall, Kenya Colony. To investigate the techniques and methods of planning, in relation to natural resources.

Colin Stokes Ramage, Acting Assistant Director, Royal Observatory, Hong Kong. To study tropical and sub-tropical meteorology, probably at Florida and Chicago.

Fellowships through the Salzburg Seminar in American Studies.

Kjell Ando Romanus Fastborg, Psychiatric Resident, Caroline Institute, Stockholm. To study psychiatry and sociology at Yale.

Robert Charles Pages, Attaché, Centre National de la Recherche Scientifique, Paris. To study psychology at Harvard.

1953–54 Second Year Extensions, General

Victor Kurt Alfred Morris Gugenheim, Fellow, Magdalen College, Oxford. To study mathematics at Princeton for 9 months.

Hugh Esmor Huxley, research student in Medical Research Council unit. Cavendish Laboratory, Cambridge. To study the molecular structure of muscle and the mechanism of muscular contraction at the Massachusetts Institute of Technology for 9 months.

Nicholas Avrion Mitchison, Fellow, Magdalen College, Oxford. To study the genetics of microorganisms, especially the metabolism of antigens at the Jackson Memorial Laboratory, Bar Harbor, Maine, for 9 months.

Derek Reginald Higham Phillips, postgraduate student, Liverpool. To investigate the uses of natural illumination in urban planning and building at the University of California, Berkeley, for 9 months.

Alan John Weir, Jesus College, Cambridge. To investigate problems connected with Lie algebras and group theories at Princeton for 9 months.

Dominion

Edmund John Buchanan Foxcroft, Principal Executive Officer and Executive Member, National Security Resources Board, Prime Minister's Department, Canberra, A.C.T. To study the economics of natural resources at Harvard and in Washington, D. C., for 6 months.

Henrietta Crawford Kirkwood, Post-primary School Inspector, Education Dept., Government of New Zealand. To study family relations and child development at Teacher's College (Columbia) for 9 months.

Jack Neville Lewis, Acting Principal Research Officer (Economic Policy), Bur. of Agricultural Economics, Dept. of Commerce and Agriculture, Canberra. To study agricultural economics at Littauer Center, Harvard, for 9 months.

Salzburg

Peter Max Atteslander, Secy., Swiss Comm. of World University Service, Zurich. To study industrial sociology at Cornell for 9 months.

The **Rockefeller Foundation** has made a grant of $100,000 to the University of Washington, Seattle, for researches in protein chemistry under the direction of Hans Neurath, Professor of Biochemistry. The grant became effective July 1 for a 7-year period.

Meetings and Elections

The **Illuminating Engineering Society** has elected the following officers for 1953–54: president, A. H. Manwaring, Philadelphia Electrical & Manufacturing Company, Philadelphia; vice president, R. F. Hartenstein, Ohio Edison Company, Akron; general secretary, M. N. Waterman, Westinghouse Lamp Division, Bloomfield, N. J.; treasurer (by re-election), Kirk M. Reid, General Electric Company, Cleveland, Ohio; vice president (2nd year of 2-year term), D. M. Jones, Curtis Lighting of Canada, Ltd.

The **Sixth International Congress for Microbiology** will be held in Rome, Sept. 6–12. On the Organizing Committee for the Congress were included: president, V. Puntoni; vice presidents, L. Califano, G. Penso, and P. Redaelli; secretary-general, E. Biocca; treasurer, M. Pantaleoni; and I. Altara, C. Arnaudi, G. A. Canaperia, G. Caronia, V. Cilli, A. Cimmino, D. Marotta, A. Morelli, B. Polettini, C. Sibilia, and A. Zironi. The work of the Congress will be divided, as has been customary, into a large number of sections covering different branches of microbiology. Six symposia have also been arranged and give promise of being of very general interest. The subjects of the symposia, and the organizers thereof, are: Bacterial Cytology (S. Mudd and G. Penso); Microbial Metabolism (E. B. Chain); Nutrition and Growth Factors (W. H. Schopfer and D. D. Woods); Morphology, Biology, and Systematics of Actinomycetales (E. Baldacci and P. Redaelli); Growth Inhibition and Chemotherapy (H. Eagle and E. B. Chain); and Interaction of Viruses and Cells (F. C. Bawden and G. Penso). Papers contributed to the symposia are being printed in book form to be ready for distribution at the opening session of the Congress. This will be a highly commendable achievement, especially in view of the fact that publication of the proceedings of many of the post-war international congresses has been regrettably slow. Prior publication of papers contributed to a symposium should certainly make for a better discussion at its sessions.

"The Research Report—Its Functions, Preparation, Distribution and Use," will be the topic for a full-day symposium before the Division of Chemical Literature at the American Chemical Society's 124th National Meeting in Chicago on Sept. 8. The program will include discussions of less obvious uses of the research report as well as of its primary function in communicating laboratory research results to administrative, sales, patent, and other departments. The problem of effective distribution in various types of organizations and the handling of reports under security restrictions will be treated by speakers from both industry and government. Of particular interest to the research man who must prepare reports are discussions of the content, style, and form best suited to the purpose.

Miscellaneous

The **European Prize Cortina-Ulisse** is a one million lire prize awarded annually to a scientific publication. It has been promoted by the magazine *Ulisse* of Rome, edited by Maria Luisa Astaldi. The 1953 prize is organized in cooperation with the Italian National Productivity Center, and will be for a work concerning economic and social sciences specifically dealing with productivity. Only works printed for the first time in Europe during the last five years will be considered. Works must be submitted in triplicate in French, German, or English either by the author or by the publisher to The Editor, Rivista Ulisse (Sezione Premio Europeo Cortina-Ulisse), 43 Corso d'Italia, Rome, Italy, *before midnight, October 31, 1953.*

The U.S. National Museum, Smithsonian Institution, has opened its first **exhibit of antibiotics,** in observance of the 25th anniversary this year of the discovery of penicillin. The exhibit was assembled by George Griffenhagen, associate curator of the Museum's division of medicine and public health, and is located in the Smithsonian's Arts and Industries Building.

A Human Engineering Section has been established in the Office of Naval Research, Washington, as a result of a recent study of the current activity in this field within the Navy. One important fact disclosed by the study is that only 7% of all Navy man-machine systems which require human engineering attention are receiving it, due partly to the gap that exists between research results and the applications of those results to equipment design. A limited number of copies of the official report are available from the Human Engineering Section, Office of Naval Research, Code 454H, Washington 25, D.C.

The **Museum of Northern Arizona at** Flagstaff will celebrate its 25th anniversary on August 22. In addition to speakers, there will be an inspection of buildings and laboratories, including the new Research Center now under construction.

The **U.S. Geological Survey's "Progress Report on Investigations of Western Phosphate Deposits"** is now available to the public. The report is being placed on open-file now, in advance of publication, to make information available for use in connection with the search for new deposits during the current field season. Copies of the preliminary manuscript may be inspected at the Idaho Bureau of Mines and Geology, Moscow, Idaho, and at the following offices of the Geological Survey: Room 1033 General Services Building (Library), Washington, D.C.; Public Inquiries Office, Room 468, New Custom House, Denver, Colo.; South 157 Howard St., Spokane, Wash.; Public Inquiries Office, Room 504, Federal Bldg., Salt Lake City, Utah; and Montpelier, Idaho.

Recent Deaths

Homer Addams (80), heating and ventilating engineer, Philadelphia, Pa., July 3; **Raymond C. Bacon** (45), research scientist, Oak Ridge, Tenn., July 7; **Albert L. Baker** (56), electrical engineer, New York, N. Y., May 4; **Philip Walter Berg** (35), entomologist and professor, Lafayette, Ind., April 14; **Guido Bergamo** (59), physician and radiologist, Venice, Italy, June 26; **Solon S. Bernstein** (56), internist, New York, N. Y., July 10; **Erwin Brand** (62), biochemist and professor, Hastings-on-Hudson, N. Y., July 12; **Karl Bremer** (68), South African Minister of Health, Capetown, South Africa, July 18; **Marion Luther Brittain** (87), president emeritus of Georgia Institute of Technology, Atlanta, Ga., July 1; **May Ayres Burgess** (65), nursing expert and educator, Washington, D. C., July 15; **Willoughby M. Cady** (46), physicist, Pasadena, Calif., June 29; **Edward G. Carey** (75), maritime engineer, Plainfied, N. J., June 29; **Philip Howard Cobb** (72), chemist and professor, Portland, Me., July 18; **William C. Coker** (80), botanist and professor emeritus, Chapel Hill, N. C., June 27; **Cole Coolidge** (56), research chemist, Wilmington, Del., July 11; **Early C. Eastman,** chemical engineer, Westfield, N. J., July 12; **Joseph Echtman** (67), specialist in cardiology and physical medicine, New York, N. Y., June 26; **Bolivar Lang Falconer** (82), mathematician, Marlin, Texas, April 26; **William L. Finley** (76), naturalist, Portland, Ore., June 29; **Newell T. Gordon** (63), lighting scientist, Schenectady, N. Y., July 18; **Harry A. Hamilton** (50), mechanical engineer, Fanwood, N. J., July 9; **John W. Hoffman** (85), educator, San Marino, Calif., July 3; **John Benjamin Holland** (43), sociologist and professor, Havana, Cuba, June 29; **Henry W. Jeffers, Sr.** (82), agriculturist and dairy expert. Plainsboro, N. J., July 17; **Frank Howard Lahey** (73), surgeon and founder of the Lahey Clinic, Boston, Mass., June 27; **Margaret C. Lewis** (83), physician, Philadelphia, Pa., July 13; **Joseph J. Lukacs** (45), electrical engineer, New Rochelle, N. Y., July 15; **William H. McCastline** (77), physician and professor, Brandon, Vt., July 11; **Arthur Coleman Monahan** (76), aviation editor of Science Service, Washington, D. C., July 2; **Muriel P. Munro,** research chemist, Philadelphia, Pa., July 12; **E. George Payne** (75), dean emeritus of New York University School of Education, Cushing, Me., June 28; **Clara Reimel** (81), physician, Philadelphia, Pa., June 30.

Col. Myron Rudolph (64), specialist in preventive medicine, Washington, D. C., June 30; **Frank L. Seymour-Jones** (57), research chemist, Englewood, N. J., July 2; **Frank E. Stevenson** (57), pediatrician and professor, Cincinnati, Ohio, July 9; **Davis H. Tuck** (64), consulting and electrical engineer, Redding, Conn., July 5; **Richard von Mises** (70), mathematician and professor, Boston, Mass., July 14; **Theodore Whittelsey, Sr.** (85), industrial chemist, Philadelphia, Pa., June 26.