131–132 [1953]) and stating that if the fireballs had come to earth earlier, instead of plunging into the Atlantic Ocean, they would have spread fire and flame over the densely populated area between New York City and Philadelphia.

The original reports are available on this display and they show that only one real fireball appeared along that path over North America at that time. The fireball was not very large, as it disintegrated at a height of twenty-five miles near Hamilton, Ontario. This fireball and associated shooting stars attracted considerable attention in the Toronto area of Canada, but they were not travelling horizontally. They were falling downward at an angle of twenty degrees, and they were not travelling in the direction of New York City. The horizontal motion was in the general direction of Washington, D. C., rather than toward New York City. Obviously what really happened was a shower of shooting stars which was exceptionally good in the Toronto area, but attracted relatively little attention elsewhere. The only report from the densely populated New York City area was from a lady who watched the sky for a while and counted seven shooting stars. The popular story is impossible, of course; and it is evident that an excellent but unpredicted shower of shooting stars has been "blown up" into a marvelous procession of fireballs.

Because of the presence of exaggeration and error, and the absence of essential facts, in older reports I have made little attempt to investigate any reports of saucers, strange lights, or objects in the sky except when they are reported promptly, usually by telephone. For these I have found it not difficult to eliminate the imagination, obtain the essential facts, and offer an explanation which is certainly or probably true. I have always assumed that the older reports I receive, and the stories featured in the magazines could be explained as easily if one had the essential facts, freed from imagination and error. This is borne out by the new book *Flying Saucers,* previously referred to, in which a reasonable explanation is offered by Menzel for the more sensational of the stories featured by those who are trying to make a case for interplanetary space ships.

# *News and Notes*

## Meeting of the American Meteorological Society

THE 122nd National Meeting of the American Meteorological Society, which convened in Washington, D. C., on April 29, was the largest in terms of total number of registrants in the thirty-four year history of that organization. Joint sessions with the American Geophysical Union on May 4 and with the American Physical Society on May 2 undoubtedly helped to swell the total registration, which reached 516. There were many registrants from foreign countries whose governments had sent delegates to the first (April, 1953) session of the Commission on Synoptic Meteorology of the World Meteorological Organization. The latter sessions terminated in Washington on April 29, permitting many of the delegates to attend the A. M. S. meeting prior to departing for their homelands.

Highlight of the A. M. S. technical sessions was a panel discussion on the "Jet Stream," with Brig. Gen. J. J. George of Eastern Airlines as Moderator. The current status of exploration of the jet stream and of research into the causes of this phenomenon and its greater utilization in weather forecasting were discussed by researchers representing the Air Force, the Navy, the Weather Bureau, the University of Chicago, and the Canadian Meteorological Service. At an evening session devoted to the rapidly growing field of radar meteorology the first known radar photographs of a tornado vortex were described by G. E. Stout of the Illinois State Water Survey. Guest speaker at the annual Spring Dinner at the National Press Club on April 30 was George Gamow, who addressed the 272 members and guests of the American Meteorological Society on the subject "Cosmic Weather."

CONRAD P. MOOK, *General Chairman of Meeting*

*U. S. Weather Bureau Consolidated Forecast Center*
*Washington National Airport*
*Washington, D. C.*

## American Association of Physics Teachers Meeting

THE Summer Meeting of the American Association of Physics Teachers was held June 25–27 at Pittsburgh, chiefly in the auditorium of Mellon Institute. The group was small enough to meet in single sessions and large enough to be stimulating. Parts of several sessions were devoted to short contributed papers on demonstration equipment or specific problems of presentation of pedagogical interest. Dr. R. Sutton stimulated the audience with various ticklish problems entitled "Some Teasers for Conclusion Jumpers." In addition there were four symposia: the relation of physics and medicine, the integration of high school and college level teaching of physics and the difficulty of implementing satisfactory science instruction at the high school level, the problem of the training of the very good student in high school so that he can be exempted from the elementary basic course in physics in college, and the new field of transistor physics. Tours planned for the

members included a visit to Buhl Planetarium and a tour of the synchrocyclotron laboratory of the Carnegie Institute of Technology at Saxonburg.

MILDRED ALLEN

*Department of Physics*
*Mount Holyoke College*

## Scientists in the News

Professor emeritus status has been conferred on **E. T.Bell,** Professor of Mathematics, and **Paul S. Epstein,** Professor of Theoretical Physics, both of the California Institute of Technology. Dr. Bell joined Caltech's staff in 1926 after fourteen years at the University of Washington. A native of Scotland, he was educated in England, came to this country in 1902, and studied at Stanford University, the University of Washington, and Columbia University, where he was awarded a Ph.D. in 1912. He is well-known for his research in the theory of numbers as well as in other fields of advanced mathematics. He holds the Bocher Prize of the American Mathematical Society and he was elected to the National Academy of Sciences in 1927.

A prolific and versatile writer, Dr. Bell received the Gold Medal of the Commonwealth Club of California in 1938 for his accomplishments in this field. He has published four learned works on mathematics and nearly 300 technical papers. His ten popular books on mathematics, history, and social criticism include *Men of Mathematics, The Magic of Numbers,* and *Mathematics, Queen and Servant of Science.* Under the pen name of John Taine, he has also published many magazine stories and 13 science fiction novels. Dr. Bell is a former President and Councilor of the Mathematical Association of America, a former Vice President and Councilor of the American Mathematical Society, and a former Vice President of the physical sciences section of the AAAS.

Dr. Epstein, who joined the Institute staff in 1921, has made many important contributions to theoretical physics, particularly in the fields of quantum theory, the structure of atoms, thermodynamics, the theory of elasticity, and fluid mechanics. He has published numerous scientific papers on these subjects and is the author of *Textbook of Thermodynamics.* He was elected to the National Academy of Sciences in 1930.

Born in Warsaw, Poland, then part of Russia, he received his bachelor's degree in 1906 at the University of Moscow. After the university awarded him the master's degree in 1909 he served there briefly as Assistant Professor of Physics, but with the threat of revolution hanging over Russia, he took a leave of absence to study at the University of Munich and never returned. He received his doctorate at Munich in 1914 and, after a brief period of internment during World War I, was allowed to continue his research there. After the war he taught and conducted research at the Universities of Zurich, Switzerland, and Leiden, the Netherlands, and then went to Caltech in 1921. He was naturalized in 1927.

Dr. Epstein's interests range widely beyond theoretical physics into philosophy, psychanalysis, and art. He is a trustee of the Psychoanalytic Institute of Los Angeles and the founder and a board member of the Psychoanalytic Study Group of Los Angeles. He is also a charter member of the Congress for Cultural Freedom, an organization of intellectuals established in 1951 to fight Communism and Communist propaganda on an international scale.

**Col. Robert J. Benford, (MC) USAF,** has been appointed editor of the *U.S. Armed Forces Medical Journal.* Col. Benford, who has relieved **Col. Wayne G. Brandstadt, (MC) USA,** is the first officer of the Air Force Medical Service to serve as an editor of the *Journal.* A graduate of the University of Nebraska College of Medicine, he was formerly on the staff of the Omaha *World-Herald.* He is a member of the advisory boards of the *Journal of Aviation Medicine* and the *Military Surgeon,* and recently he was also appointed to the editorial committee on physiologic problems of the Institute of the Aeronautical Sciences.

**Thomas Bradley,** formerly a practicing surgeon in Washington, D.C., has accepted an appointment in the Division of Medical Sciences, National Research Council. Dr. Bradley replaces **Charles E. Richards** who resigned to become Assistant Professor of Medicine, Bowman Gray School of Medicine, Winston-Salem, N.C.

President Eisenhower has nominated **Melvin A. Casberg,** assistant to Secretary Charles E. Wilson in charge of medical affairs, for appointment to the new post in the Department of Defense of Assistant Secretary for health and medical affairs. His incumbency will be for no more than six months, however, for Dr. Casberg has informed Secretary Wilson that he intends to leave government service at the end of this year to return to California and resume private practice.

**L. Royal Christensen,** Assistant Professor of Microbiology at the College of Medicine of New York University-Bellevue Medical Center, will be Director of the new Henry W. and Albert A. Berg Institute for Experimental Physiology, Surgery and Pathology. A native of Everson, Washington, Dr. Christensen received his B.S. in 1936 from the University of Washington and his Ph.D. in 1941 from the St. Louis University. He has been with the faculty of NYU College of Medicine since 1941.

Dr. Christensen is recognized for his scientific investigation of the preparation, purification, and mechanism of action of specific enzymes to determine whether they could safely be utilized for therapeutic application. Results of Dr. Christensen's findings, together with research carried forward by a team of physicians under the direction of **William S. Tillett,** Professor and Chairman of the Department of Medicine of NYU College of Medicine, resulted in the development of a new therapeutic technique. It became

possible to employ certain specific bacterial enzymes to liquefy clots and to permit the removal, by aspiration, of abnormal fluid accumulations in the body which, when not liquefied and removed, had often proved fatal. Dr. Tillett and Dr. Christensen received the 1949 Lasker Award in recognition of this important contribution to therapeutic techniques.

The Berg Institute was made possible through gifts from the late Albert A. Berg, the well-known surgeon who contemplated "a workshop where physiology and pathology would contribute nutriment for the growth of surgery." Dr. Berg's will provided $500,000 for construction of the Institute named for him and his brother, Henry, who was an authority on infectious diseases and internal medicine. He also provided a fund of well over $1,000,000 for maintenance of the Institute.

**Ethaline Cortelyou** has returned to the Armour Research Foundation after an absence of three years spent as an associate chemist in the Industrial Hygiene and Safety Division of the Argonne National Laboratory. Mrs. Cortelyou is report editor for the Foundation's Chemistry and Chemical Engineering Department.

**Charles U. Duckworth** has been appointed special assistant to the Secretary of Agriculture to serve in the cooperative efforts with Mexico for the eradication of foot-and-mouth disease in that country. He is going to Mexico immediately to confer with the Minister of Agriculture and other Mexican officials and to assist in formulating a program designed to lead to an early eradication of the disease. In accepting the appointment, Dr. Duckworth is interrupting an assignment with the Mutual Security Agency in Europe. For the past year and a half he has been assisting various countries in Europe and the Near East to combat foot-and-mouth disease. Dr. Duckworth is a veterinarian and has played a major part in the control and eradication of animal diseases in his home state, California.

**H. Herbert Fox,** Senior Chemist with Hoffman-La-Roche, Inc., has been selected to receive the Scroll of the New Jersey Science Teachers Association as the resident of New Jersey who has contributed most to science during the year. The award is being given to Dr. Fox for his work in the chemotherapy of tuberculosis and his discovery of the antitubercular hydrazides.

**Nathanial Howell Furman,** Chairman of the Department of Chemistry at Princeton University, has been selected to receive the 1953 Palladium Medal of the Electrochemical Society. The award will be conferred for outstanding contributions to the field of analytical chemistry, and particularly for successful application of electrochemical principles to the development of new methods and techniques of chemical analysis. Dr. Furman is a former president of the American Chemical Society.

**Allan Juster,** formerly project engineer with the National Bureau of Standards, has been named a full research engineer in the propulsion and structural research department at the Armour Research Foundation of the Illinois Institute of Technology.

**George W. Martin** has succeeded graduate **Dean Walter F. Loehwing** as Head of the State University of Iowa Botany Department. The change will enable Dean Loehwing, who has been associated with the University since 1925, to give full-time attention to the University's growing graduate college. A specialist in problems of cellulose decay in textiles, Dr. Martin is recognized as an authority on such fungi as slime molds and mildew. Since 1951 he has been Editor-in-Chief of *Mycologia,* a journal on fungi research published by the Mycological Society of America. He was President of the Society in 1945. Except for a year's leave in 1945, Dr. Martin has taught at SUI since 1923.

**Norman Rostoker,** former research physicist at Carnegie Institute of Technology, Pittsburgh, has been appointed a full physicist at the Armour Research Foundation of the Illinois Institute of Technology.

**Werner B. Schaefer,** a researcher at Pasteur Institute, Paris, both before and after World War II, has joined the staff of National Jewish Hospital, Denver, Colo., to make a study of the special growth requirements of tuberculosis germs which are resistant to isoniazid. Dr. Schaefer came to the U.S. in 1948. He spent his first two years in this country at N.Y. University, and the last three have been spent at the Rockefeller Institute where he has conducted research for several U.S. Public Health Service projects.

**William C. Steere,** Department of Biological Sciences, Stanford University, has been elected Editor-in-Chief of the *American Journal of Botany,* effective September 1.

**William L. Stern,** Department of Botany, University of Illinois, has been appointed Instructor in Wood Anatomy in the School of Forestry, Yale University, effective September 1.

**Carsten C. Steffens,** Assistant Director of the Stanford Research Institute from 1947 to 1949, has returned to the Institute as Technical Coordinator of the research divisions. For the past four years Dr. Steffens has been Associate Professor of Chemistry at the University of New Mexico. In his new position he will follow progress of all research groups and act as technical advisor on certain industrial projects. A specialist in physics of the atmosphere, Dr. Steffens in 1947 helped initiate SRI's study of smog in Los Angeles. He developed a photometric photometer for measurement of haze particles in the atmosphere. He also helped develop physical methods for investigating atmospheric impurities.

## Education

**Cornell University** recently dedicated two new laboratories for the study of engineering materials. The buildings, erected from a $1,800,000 fund subscribed largely by alumni, are memorials to two of Cornell's most prominent engineering figures, Dexter S. Kimball, first Dean of the College of Engineering, and Robert H. Thurston, original President of the American Society of Mechanical Engineers.

The **Florida State Museum,** a unit of the University of Florida in Gainesville, has made the following appointments to its curatorial staff: A. Gilbert Wright, Curator of Exhibits, formerly Curator of Zoology, Illinois State Museum; Ripley Bullen, Curator of Social Sciences, formerly Assistant State Archeologist, Florida Park Service; and J. C. Dickinson, Jr., Curator of Biological Sciences. Dr. Dickinson will continue as Assistant Professor in the Department of Biology as well as in his new position with the Museum. The Museum is also inviting experts on the University staff to join the Museum's Board of Associates in order to sponsor the Museum's collections in their particular specialties.

Publication of a magazine to present General Motors technical developments to educators and engineering college students has commenced with the release of the June–July issue. The new publication will be known as the *GM Engineering Journal* and it will appear bi-monthly during the school year and once during the mid-summer months.

A permanent **high-altitude research observatory** has been successfully established on the 14,006-foot summit of Mt. Wrangell, a dormant volcano, by an expedition led by **Serge A. Kroff,** Professor of Physics at New York University, and **Terris Moore,** President of the University of Alaska. The station will provide an inter-university center for research in cosmic radiation, high-altitude biology, and meteorology. A party of five persons climbed the mountain on foot, arriving at the summit on July 1. They were the second group ever to reach the summit, the first successful ascent having been made in 1908.

Two Jamesway huts and related supplies and equipment have been airdropped to the party by a private plane piloted by Dr. Moore. One of the huts is used as living quarters by the research workers; the other is a laboratory housing scientific supplies and equipment. It is believed that Dr. Moore, who took off from the summit with Dr. Korff as a passenger and with a load of cargo, has established a new record for loaded takeoffs of light private planes at high altitudes. He also, thus, has demonstrated the feasibility of supplying the station entirely by air.

In answer to increased demands for recreation specialists in institutional work, **New York University's School of Education** will offer a new graduate curriculum in hospital recreation, beginning with the fall term. The group of courses, to be conducted in the Department of Physical Education, Health, and Recreation, will train graduates to inaugurate and carry out recreation programs in custodial institutions, hospitals, homes for the aged, and rehabilitation centers.

## Grants and Fellowships

The **Jane Coffin Childs Memorial Fund for Medical Research** has announced the following appropriations made by its Board of Managers on October 25, 1952, February 11, 1953, and May 15, 1953, in a total sum of $238,480 for support of cancer research projects and fellowships.

*Projects*

Harris Busch, Assistant Professor of Physiological Chemistry, Yale University School of Medicine, $7,950 for a year (1952–53) and a second grant of $18,000 for a two-year period (1953–55) for investigations on the metabolism of tumors *in vivo.*

Cancer Research, Incorporated, $9,000 for a three-year period (1/1/53–12/31/55) for continued support of the journal *Cancer Research.*

F. Duran-Reynals, Lecturer, Department of Microbiology, Yale University School of Medicine, $49,500 for a three-year period (1953–56) for the study of the part played by viruses in the genesis of cancer.

William U. Gardner, Professor of Anatomy, Yale University School of Medicine, $20,400 for a three-year period (1953–56) for investigations on hormonal imbalances in experimental tumorigenesis.

William H. Gaylord, Research Associate in Microbiology, Henry Bunting, Associate Professor of Pathology, and Sanford L. Palay, Assistant Professor of Anatomy, Yale University School of Medicine, $5,000 for one year (9/1/53–8/31/54) for investigations of the intracellular development of virus particles and its relation to neoplasia.

Gabriel C. Godman, Research Associate in Surgery, College of Physicians and Surgeons, Columbia University, $2,980 for one year (1953–54) for a cytochemical study of nucleic acid and protein synthesis in cultured cells during the mitotic cycle, with particular reference to the effect of certain antimetabolites.

Alexander Haddow, Director, and his associates at the Chester Beatty Research Institute of the Royal Cancer Hospital (Free). London, England, $5,000 for a year (1953–54) for investigations on the chemistry, virology, and chemotherapy of cancer.

Clarence C. Little, Director, Roscoe B. Jackson Memorial Laboratory, $6,500 for one year (1953–54) for the planned study designed to modify the virulence of the mammary tumor inciter in mice.

Balduin Lucké, Professor of Pathology, Univesrity of Pennsylvania Medical School, $23,100 for a three-year period (1/1/53–12/31/55) for investigations on enzyme patterns in relation to the development and growth of neoplasms and the mechanism of metastasis.

Basile J. Luyet, Professor of Biology, Saint Louis University, $3,500 for one year (1953–34) for investigations on the relationship between the degree of preservation of red cells in frozen blood and the amount of ice formed.

Leon L. Miller, Associate Professor of Radiation Biology and Biochemistry, University of Rochester School of Medicine and Dentistry, supplementary grant of $11,250 for a period of one and one-half years (1/1/53–6/30/54) for physiological and chemical studies of protein synthesis as related to neoplastic growth.

National Academy of Sciences, $3,000 for a three-year period (1953–56) for assistance in the compilation of an Atlas of Tumor Pathology, under the direction of Balduin Lucké, Chairman of the Subcommittee on Oncology of the Committee on Pathology of the National Research Council.

National Research Council, U.S.A. National Committee on the International Union Against Cancer, R. Keith Cannan, Vice-Chairman, $500 for a year (1952–53) toward the budget of $8,500 which the United States has been asked to assume of the total expenses of the Union.

Elmer H. Stotz, Professor of Biochemistry, University of Rochester School of Medicine and Dentistry, $20,000 for a two-year period (1953–55) for investigations on the oxidation capacity of hormone-stimulated uterus and of tumor.

Helene W. Toolan, Assistant, Sloan-Kettering Institute for Cancer Research, Memorial Center for Cancer and Allied Diseases, $15,000 for a year (1953-54) for investigations on the growth of human tumors in laboratory animals, and the relationship of hormones to the growth of certain special tumors, such as melanomas and mammary adenocarcinomas in these animals.

John J. Trentin, Assistant Professor of Anatomy, Yale University School of Medicine, $6,000 for a three-year period (1953–56) for investigations on the influence of the endocrines on the mammary gland, including development of lactation and tumorigenesis.

William W. Winternitz, Instructor, and C. N. H. Long, Professor, Department of Physiology, Yale University School of Medicine, $24,000 for a two-year period (1953–55) for investigations on the effect of transplantable tumors on the metabolism of the host (albino rats).

*Fellowships*

Paul A. Srere, Fellow, Department of Physiological Chemistry, Yale University School of Medicine, under guidance of Efraim Racker, $4,000 for one year (September 1, 1953–August 31, 1954).

Maire T. Hakala, Fellow, Department of Pharmacology, Yale University School of Medicine, under guidance of Arnold Welch, $3,800 for one year (October 1, 1953–September 30, 1954).

Leonard S. Silbert has been appointed senior fellow under a multiple fellowship recently established by the **National Renderer's Association** at the U.S. Bureau of Agricultural and Industrial Chemistry's Eastern Laboratory in Wyndmoor (Philadelphia) Pa. The multiple fellowship is part of a new research program being initiated by the Association to find new uses for inedible tallow and grease.

The **National Vitamin Foundation** gives grants-in-aid for research semi-annually, throughout the country and abroad. New grants, amounting to $69,710, became effective on June 30 and were awarded to the following:

Louis D. Greenberg and J. F. Rinehart, University of California, San Francisco, for studies on the fundamental biochemical and morphologic pathology of B-vitamin deficiencies in the Rhesus monkey.

Richard W. Vilter, University of Cincinnati, for studies in nutrition.

E. L. Hove, Alabama Polytechnic Institute, for studies on the influence of vitamin E and other nutrients on tissue fat composition.

David R. Weir, Western Reserve University, for studies on the role of B vitamins in leucocyte formation in normal and pathologic conditions of human beings and mice.

Robert E. Olson, University of Pittsburgh, for studies on the interrelationship of thiamine, pantothenic acid and insulin in the metabolism of carbohydrates.

William F. Alexander, St. Louis University, for studies on the relation of vitamin $B_{12}$ to nerve cell metabolism and studies on the role of vitamin $B_{12}$ in protecting nerve tissues against chemical poisons, fatigue, and prolonged stimulation.

Karl E. Mason, University of Rochester, for studies on vitamin E (alpha tocopherol) in tissues with particular reference to its intracellular localization.

E. W. McHenry, University of Toronto, for studies on the relation of vitamin $B_6$ to protein metabolism.

Albert E. Sobel, The Jewish Hospital of Brooklyn, for studies of the vitamin D estimation in blood.

Josef Warkany, University of Cincinnati, Cincinnati, Ohio, for studies on the role of vitamins and related substances in pregnancy and prenatal life.

Elaine P. Ralli, New York University, New York, N. Y., for studies of the influence of certain nutritional fractions in patients with diabetes mellitus.

R. W. Luecke, Michigan State College, for studies on the quantitative requirements of the baby pig for certain B vitamins.

Gerald R. Seaman, University of Texas, for studies on the metabolic role of thioctic acid.

M. K. Horwitt, Elgin State Hospital, Elgin, Ill., for studies of tocopherol requirements of man.

## Meetings and Elections

The **Association of Research Directors** has elected the following officers for the 1953–54 season: past president, Emil Ott, Hercules Powder Company; president, Allan R. A. Beeber, Keuffel & Esser; vice president, Delbert F. Jurgensen, Congoleum-Nairn, Inc.; secretary treasurer, D. X. Klein, Heyden Chemical Corporation; councilors, 1 year, W. H. Lycan, Johnson & Johnson, 2 years, Maurice Moore, Vick Chemical Company, 3 years, Wayne Kuhn, The Texas Company.

The IX **International Congress of Genetics** will take place at Bellagio, Italy from the 24th to the 31st of August. More than 750 members are enrolled so far, including 126 North Americans. Thirty-eight countries are expected to attend the meeting, and a number of governments, academies, universities, and learned societies will send official representatives. Nearly 300 short papers are being contributed, and 43 general lectures will be given. The following seven Plenary Sessions are scheduled: Bases of Heredity; Genetic Mechanisms and Mutations; Cytologic Mechanisms; Development Mechanisms; Evolutionary Mechanisms; Human Genetics; Applied Genetics. Post-Congress tours are planned during which visits of scientific interest will be organized.

At the 17th Triennial Convention of **Phi Lambda Upsilon** four American chemists were elected to honorary membership. They are: Charles A. Thomas, President of Monsanto Chemical Company; Farrington Daniels, Professor of Physical Chemistry at the University of Wisconsin and at present the President of the American Chemical Society; Hermann I. Schlesinger, Professor of Inorganic Chemistry at the University of Chicago and Ernest H. Volwiler, President of Abbott Laboratories.

Another **Rochester conference on high energy nuclear physics** is assured early next year at the University of Rochester as the result of an announcement by the National Science Foundation that it will join a group of Rochester industries to co-sponsor the next meeting. The National Science Foundation will support the fourth annual Rochester conference with a grant of $3,000. The Foundation granted $3,200 to help meet expenses of the third annual conference held last December. Purpose of the Rochester high energy nuclear conferences is to bring together a representative group of active workers in the field of high energy physics for an informal discussion of the latest experimental results and their theoretical interpretation. Invitees include the leading research workers in the high energy physics laboratories throughout the world.