

receive, as soon as possible, information or suggestions for presentation by those unable to attend in person.

### BIRTHDAYS AND RESEARCH CENTERS

UNDER this title *Nature* is publishing each week under the birthdays of scientific men occurring during the week autobiographical notes on the work that they are doing. The four statements in the issue of March 21 include the following:

March 22, 1868—PROFESSOR ROBERT A. MILLIKAN, chairman of the executive council of the California Institute of Technology and director of the Norman Bridge Laboratory.

I am still pursuing quite intensively my studies in the field of the cosmic radiations; for they have relations to meteorology not yet fully explored, and their values at very high altitudes still have something to teach us about the precise nature of the cosmic atom-building processes. Also, as an adjunct to these studies, I am interested in the problem of the origin of the very heavy elements and, as a possible clue to its solution, am collecting further data, by a new method, on the terrestrial distribution of the radioactive elements. Artificially stimulated

radiations of high penetrating power are also a part of the program.

March 25, 1863—DR. SIMON FLEXNER, For. Mem. R.S., director of the Rockefeller Institute for Medical Research.

The constantly growing number of those diseases of man, the lower animals and plants shown to be brought about by filterable agents or viruses, emphasizes their known significance. Among human beings, a disease of this character is poliomyelitis or infantile paralysis. The modes of infection and of extension of the virus of this disease are questions of outstanding importance. Ever since 1909, when the first serial transmission of the disease to monkeys was accomplished (Flexner and Lewis), these questions have commanded attention. The indications, then secured and since confirmed, are to the effect that the virus is nerve conducted, as it enters and even as it leaves the body of infected human beings and animals *via* the respiratory mucous membranes.

Not only is this finding of importance in so serious a disease as poliomyelitis, but corresponding questions are of high interest in connection with virus diseases generally, as is also the question of the precise nature (chemical or otherwise) of the viruses themselves.

## SCIENTIFIC NOTES AND NEWS

ACCORDING to press dispatches Professor Albert A. Michelson has improved after a somewhat critical nervous collapse. Dr. Michelson has been carrying on his experiments in the vicinity of Pasadena, measuring the velocity of light in a vacuum tube. It is said that he has been working until after midnight, returning from the Irvine Ranch, near Santa Ana, at three o'clock in the morning. The experiments are being continued during Dr. Michelson's illness by his assistants, Dr. Francis G. Pease, of the Mount Wilson Observatory, and Dr. Fred Pearson, of the University of Chicago.

PROFESSOR G. H. PARKER, director of the Harvard Zoological Laboratory, has been elected an honorary member of the Philosophical Society of Cambridge, England.

M. ELIE CARTAN, professor of mathematics at the University of Paris, has been elected a member of the Paris Academy of Sciences to succeed the late Paul Appell.

DR. PHILIP FURTWÄGLER, professor of mathematics at the University of Vienna, has been elected a member of the Prussian Academy of Sciences.

THE University of Edinburgh will confer the honorary degree of doctor of laws at the graduation ceremonial on July 2 on: Dr. E. J. Allen, director of the Marine Biological Laboratory, Plymouth; on

Sir George Berry, member of Parliament for the Scottish universities, formerly lecturer in ophthalmology in the University of Edinburgh, and on Sir Walter Morley Fletcher, secretary of the Medical Research Council.

At a meeting of the senate of the University of London, Sir John Rose Bradford, president of the Royal College of Physicians, was nominated to receive the honorary degree of doctor of medicine, and Professor Kappers, of Amsterdam, the degree of doctor of science.

THE University of Darmstadt has conferred the honorary degree of doctor of engineering upon Bernard Arthur Behrend, of Wellesley Hills, Massachusetts, "for meritorious work in the construction of induction machines."

SIX chemists received the honorary doctorate of laws in connection with the dedication exercises of the building for chemistry, erected at a cost of \$500,000, at Indiana University. These were: Dr. Fuanobu Isobe, chemical engineer of Tokio, Japan; Dr. O. C. Martin, chemical and metallurgical engineer, Antwerp; Dr. L. F. Rettger, chemist and bacteriologist, Yale University; Dr. O. B. Perry, consulting mining engineer, San Francisco; Dr. Earl Blough, chemical and metallurgical engineer, New York City; Dr. J. N. Currie, zymochemical engineer,

Brooklyn, New York. All are graduates of Indiana University.

IN appreciation of the work accomplished in the Czechoslovakian Republic and of his contributions to agricultural science, Dean C. B. Hutchison, of the University of California College of Agriculture, has been decorated with the Order of the White Lion. The decoration was bestowed by Dr. K. Brejske, Czechoslovakian consul in San Francisco.

THE American Geographical Society announces the award of the Charles P. Daly Medal for 1931 to Major Gunnar Isachsen, director of the Maritime Museum, Oslo, for his contributions to our knowledge of the Polar regions. Major Isachsen was topographer on the second Norwegian Arctic Expedition in the *Fram* under Otto Sverdrup (1898-1902) when important discoveries were made in the Canadian Arctic Archipelago. During 1906-1910 he spent four summers in Spitsbergen. Major Isachsen visited the Antarctic in 1926-1927 for study of the Norwegian whaling industry, an account of which he presented in the July, 1929, number of *The Geographical Review*. This last season, 1930-31, he commanded the *Norvegia* on her circumnavigation of the Antarctic, Consul Lars Christensen's project for study of the number and distribution of whales.

THE Duddell Medal of the Physical Society of London, awarded for the advancement of knowledge by the invention or design of scientific instruments or by the discovery of materials used in their construction, has been given to Sir Ambrose Fleming, and was presented to him by the president, Professor Sir Arthur Eddington, at the annual general meeting of the Physical Society, which was held on March 20. The connection of Sir Ambrose Fleming with the Physical Society of London dates back to its beginning, for he read the first paper at the inaugural meeting of the society in March, 1874.

THE council of the Royal Society, as *Nature* records, has agreed to recommend for election as fellows of the society the following seventeen candidates: Percy George Hamnall Boswell, professor of geology in the Imperial College of Science and Technology; Alfred Joseph Clark, professor of pharmacology in the University of Edinburgh; Charles Davidson, assistant at the Royal Observatory, Greenwich; Reginald Ruggles Gates, professor of botany, King's College, London; Charles Stanley Gibson, professor of chemistry, Guy's Hospital Medical School; Hermann Glauert, principal scientific officer, Royal Aircraft Establishment, Farnborough; Charles Robert Harington, reader in pathological chemistry in the University of London; Isidor Morris Heilbron, professor of organic chemistry in the Uni-

versity of Liverpool; Sir Alexander Cruikshank Houston, director of water examinations to the Metropolitan Water Board; Lieutenant-Colonel Sydney Price James, adviser on tropical diseases to the British Ministry of Health; Charles Frewen Jenkin, lately professor of engineering science in the University of Oxford; Stanley Wells Kemp, director of research, *Discovery* Expedition; Thomas Howell Laby, professor of natural philosophy, University of Melbourne; William Kingdon Spencer, paleontologist; Edward Charles Titchmarsh, professor of pure mathematics, the University of Liverpool; Wilfred Trotter, surgeon to University College Hospital; Miles Walker, professor of electrical engineering, University of Manchester.

PROFESSOR E. J. GARWOOD has been elected president of the Geological Society of London. The vice-presidents are Mr. J. F. N. Green, Professor J. W. Gregory, Dr. H. H. Thomas and Professor W. W. Watts.

DR. CHARLES L. CHRISTENSEN, the newly elected dean of the College of Agriculture of the University of Wisconsin, has taken up his work at the university, after closing up his affairs as secretary of the Federal Farm Board.

MR. H. J. SPELMAN, chief engineer of the West Virginia State Road Commission, has resigned to take a position with the U. S. Bureau of Roads in Washington.

DR. BRADFORD WILLARD has been appointed a correspondent of the *Revue de Géologie* for the Pennsylvania Topographic and Geologic Survey.

MR. A. L. COLTON, for the last seven years on the editorial staff of the Bureau of Entomology, retired in February. Mr. Colton formerly served as assistant astronomer at the Lick Observatory and taught physics at the University of Wisconsin.

MR. WILLIAM R. BARBOUR, formerly in tropical forestry work in Haiti and other Caribbean countries, has been detailed by the Forest Service to organize a forestry program for the Virgin Islands. He has reported for work at St. Thomas and has begun a survey of forest conditions on the islands.

DR. E. V. MCCOLLUM, professor of biochemistry at the Johns Hopkins University, has been appointed by the Secretary of Agriculture as delegate to the International Dairy Congress in Copenhagen.

DR. LOUIS T. MORE, professor of physics and dean of the Graduate School of the University of Cincinnati, sailed on April 4 for Europe with his brother, Dr. Paul Elmer More, professor of philosophy at Princeton University.

PROFESSOR K. F. WENCKEBACH, of the University of Vienna, has been invited by the Queen Wilhelmina Jubilee Foundation to investigate the pathology of the heart in acute beri-beri at the recently established medical faculty at Batavia in Java.

DR. ARNO B. LUCKHARDT, of the University of Chicago, delivered a lecture at Ohio University on "Highlights and Shadows in the History of Anesthesia" on March 11. This lecture was the second of a series given under the auspices of the department of biology. The first lecture was given by Dr. Lawrence H. Snyder, of the Ohio State University, on "Clinical and Legal Aspects of Blood Groups."

SIR WILLIAM HARDY, of the Food Investigation Board of the Department of Scientific and Industrial Research and Low Temperature Research Station, Cambridge, England, will deliver the seventh Harvey Society Lecture at the New York Academy of Medicine, on Thursday, April 16. His subject will be "The Use of Cold in the Analysis of Physiological Function."

DR. B. M. DUGGAR, professor of plant physiology in the University of Wisconsin, will give the invitation address in connection with the annual initiation of the Iowa Chapter of Sigma Xi on April 29.

DR. MAURICE A. BIGELOW, professor of biology at Teachers College, Columbia University, and chairman of the executive committee of the American Social Hygiene Association, will deliver a lecture entitled "Social Hygiene and the Family" in London, on April 21, under the auspices of the British Social Hygiene Council. The Duchess of Atholl, M.P., will preside.

IN the issue of *SCIENCE* for March 27, the name of the president of the Columbia Chapter of Sigma Xi was incorrectly given. It should have been given as Professor Jerome J. Morgan.

THE first scientific meeting of the recently founded German Society for Internal Medicine and Neurology in the Czechoslovakian Republic was held at Prague on March 7 and 8, when the chief subject for discussion was the modern treatment of blood diseases.

THE Second International Congress of the History of Science and Technology will take place in London from Monday, June 29, to Friday, July 3, 1931. The headquarters will be the Science Museum, South Kensington. The congress, which originated with the Comité International d'Histoire des Sciences, founded at Oslo on August 17, 1928, meets annually in Paris and organizes every three years a congress in which those interested in the history of science and technology are invited to take part. For the coming congress the Comité has been fortunate in

enlisting the cooperation of its parent body, the Comité International des Sciences Historiques, together with that of two other international societies—the History of Science Society and the Newcomen Society for the Study of the History of Engineering and Technology. The aim of the congress is to provide opportunity for intercourse and exchange of thought between all those who are interested in the various departments of the History of Science and Technology. The program is being arranged to cover the period indicated. Besides scientific communications, there will be social gatherings, visits to institutions and excursions to places of historic interest. Further particulars can be obtained on application to The Hon. Sec. International Congress of the History of Science, The Science Museum, South Kensington, London S. W. 7, England.

THE fifty-ninth convention of the Electrochemical Society will be held at Birmingham, Alabama, on April 23, 24 and 25. The three main sessions will be devoted to "Ceramics," "Electronics" and "The Electrodeposition of the Noble Metals," respectively. Birmingham is rapidly developing into one of the most important industrial centers of the United States, and members and guests of the society will have ample opportunity to visit a number of the leading industrial plants of the South.

THE eighth annual meeting of the West Virginia Academy of Science will be held at the West Virginia Wesleyan College, Buckhannon, West Virginia, on April 24 and 25. Sectional meetings will be held on Friday afternoon following the address of President A. B. Brooks, of Oglebay Park, Wheeling. A banquet will be held on Friday evening, after which Professor Roy Doreus, of the Johns Hopkins University, will deliver the principal address. Saturday morning will be devoted to excursions to near-by points of interest.

THE Alabama Academy of Science held its eighth annual meeting on the campus of the University of Alabama on March 13 and 14. More than fifty papers were read and discussed. At a banquet attended by more than a hundred, President Emmett B. Carmichael read a paper on "The South's Contribution to Science." The visiting speaker was Dr. E. E. Reinke, head of the department of biology of Vanderbilt University, who discussed "The Highlands (North Carolina) Museum and Biological Laboratory Plans for a Mountain Research Station in the South." Officers elected for the year 1931-32 are: *President*, George Fertig, director of the Pittsburgh Testing Laboratories, Birmingham; *First Vice-president*, Herbert Martin, professor of chemistry, Auburn; *Second Vice-president*, H. C. Heath, professor of biology,

Woman's College, Montgomery; *Treasurer*, E. A. Hawk, fuel engineer, T. C. I., Ensley; *Editor of the Journal*, E. V. Jones, professor of chemistry, Birmingham-Southern College; *Councillor to the American Association for the Advancement of Science*, Emmett B. Carmichael, professor of biochemistry, University of Alabama; *Permanent Secretary*, J. L. Brakefield, professor of biology, Howard College, Birmingham. The academy will hold its ninth annual meeting in March 1932 at Howard College, Birmingham.

THE College of Medicine of the University of Illinois Chapter of Sigma Xi has announced the elections to the chapter for the year. There are three promotions from associate to active membership, eighteen elections to active, and twenty-two to associate membership. Of the forty elections to membership, twenty-one are faculty members, including two from the College of Dentistry and one from the College of Pharmacy. The balance of the elections are from the student body of the Graduate School, which numbers one hundred and twenty-one in graduate work in medicine and dentistry. The chapter has recently established an annual cash prize for the best original investigation by a student of the College of Medicine, Dentistry or the Graduate School. The chapter is unique in that it is the only one that has been granted so far to a college of medicine and is the second chapter granted to the University of Illinois. The only other chapter of the society in somewhat similar position is the chapter at the Mayo Foundation, which is the second chapter in the University of Minnesota. The officers of the chapter are: Dr. William F. Petersen, *President*; Dr. W. J. R. Camp, *Vice-president*; Dr. William H. Welker, *Secretary*; Dr. I. Pilot, *Treasurer*; *Executive Committee*, Dr. D. J. Davis, Dr. O. F. Kampmeier and Dr. H. A. McGuigan.

THE Louisiana Academy of Sciences, presided over by Professor F. G. Fournet, vice-chairman; the Louisiana-Mississippi Section of the Mathematical Association of America, presided over by Professor Irby C. Nichols, of Louisiana State University, chairman, and the Louisiana-Mississippi branch of the National Council of Teachers of Mathematics, under the presidency of Professor B. A. Tucker, held a joint meeting at the Louisiana State Normal College at Natchitoches on March 13. In addition to the technical papers presented at the scientific sessions an illustrated lecture on "The Great Cities of Ancient America" was given by Dr. Frans Blom, of the department of Middle American Research, Tulane University. The local branch of the American Association of University Women served tea to members of the societies and their guests, and the

meeting closed with a banquet in the college dining hall.

THE *Journal* of the New York Botanical Garden reports that Dr. E. D. Merrill has recently presented to the library of the garden two Wedgewood medallions, one of Sir William Jackson Hooker, director of the Royal Botanic Garden at Kew from 1841 to 1865, and the other of his son, Sir Joseph Dalton Hooker, who was director from 1865 to 1885. These medallions were prepared from the original dies of earlier date in connection with the Fifth International Botanical Congress held at Cambridge, England, last August, at which Dr. Merrill was one of the five delegates representing the New York Botanical Garden. The various excursions arranged for visiting delegates before, during and after the congress included a pilgrimage to Halesworth Church, in Suffolk, for the dedication of a memorial tablet to Sir Joseph Hooker, born at Halesworth, and Sir William, who lived there for a number of years.

THE University of Wisconsin was recently made the beneficiary of \$20,000 in the will of the late Mrs. Janet Van Hise, widow of Professor Charles R. Van Hise, formerly president of the university. The money will provide a research fellowship in the field of geology.

SIR WILLIAM BRAGG, director of the Royal Institution and of the Davy-Faraday Research Laboratory, spoke at a luncheon of the British Electrical Development Association at the Savoy Hotel on March 20, on the celebration of the Faraday Centenary in September. According to the report in the *London Times*, the guests numbered over five hundred and included visitors from France, Germany, Holland, Belgium and Austria. The president, Alderman E. Huntsman, presided. The chief feature of the Faraday celebrations, Sir W. Bragg said, "would be an exhibition in the Albert Hall illustrating the nature of Faraday's discoveries and the lessons to be derived from them. A statue of Faraday would be the center of the exhibition. At his feet one of his first experiments would be shown and the actual things be used—a piece of wire, a magnet and a drop of mercury. From this would spread, like the spokes of a wheel from its center, numerous exhibits showing the marvelous development of the uses of electricity in varied forms from that simple experiment. As Faraday by the charm and skill of his lectures had inspired his listeners with the beauty and uses of his discoveries, so the association must be at pains to cultivate the art of exposition. The British electrical industry ought to afford the greatest encouragement to the country. What our men had done in the past our men could do in the future."