

SCIENTIFIC NOTES AND NEWS

At the opening meeting of the autumn session of the National Academy of Sciences at Yale University on November 16 the address of welcome will be given by Dr. James Rowland Angell, president of the university. The response will be made by Dr. William Wallace Campbell, president of the academy. A public lecture on the evening of November 16 will be given by Dr. John Campbell Merriam, president of the Carnegie Institution of Washington, whose subject will be "The Cats of Rancho La Brea; a Climax to Evolution."

DR. WALTER B. CANNON, Higginson professor of physiology at Harvard University, on behalf of the faculty of medicine, and Dr. Henry Fairfield Osborn, president of the American Museum of Natural History, on behalf of the faculty of science, were awarded the honorary doctorate of the University of Paris at the opening ceremonies held in the Sorbonne on November 7.

DR. C. D. PERRINE, formerly of the Lick Observatory and for the past twenty years director of the National Observatory of Argentina at Cordoba, has been elected a corresponding member of the Sociedad Cientifica Argentina of Buenos Aires.

SIR SIDNEY HARMER, lately director of the natural history departments of the British Museum, has been elected a foreign member of the Royal Swedish Academy of Science.

At the inauguration of the new president of Morningside College, Sioux City, Iowa, on October 24, honorary degrees were conferred upon four of its early graduates, including Dr. Fred J. Seaver, curator of the New York Botanical Garden, and Dr. Alexander G. Ruthven, formerly professor of zoology and director of the museum and now president of the University of Michigan.

DR. SAMUEL NEWTON SPRING, professor of silviculture in the department of forestry at Cornell University, has been appointed assistant dean of the New York State College of Forestry at Syracuse University. Professor Spring will assume his duties as assistant dean and director of instruction for both the college and the New York State Ranger School early in 1932.

DR. HENRY ALDEN SHAW has been appointed assistant professor of mental hygiene at the Harvard University Medical School. He has been associated with the school since 1925 as assistant in hygiene and psychiatrist.

DR. MARVIN L. PABST, formerly an instructor in the division of pharmacology, College of Medicine, Uni-

versity of Tennessee, has been appointed assistant professor of pharmacology in the University of Buffalo College of Pharmacy.

DR. FRED O'FLAHERTY, of the research staff of the University of Cincinnati, has been appointed director of the research laboratory of the Tanners' Council of America.

THE British Ministry of Agriculture and Fisheries has appointed Mr. J. L. S. Gilmour, curator of the University of Cambridge Herbarium and Museum, of the Botany School, to be assistant director of the Royal Botanic Gardens, Kew.

THE faculty board of biology at the University of Cambridge has appointed Mr. A. G. Brighton, of Christ's College, curator of the Sedgwick Museum of Geology for three years, dating from October 1.

DR. G. H. HARDY, Sadleirian professor of pure mathematics in the University of Cambridge, has been elected to a professorial fellowship at Trinity College. Dr. Cecil Edgar Tilley, professor of mineralogy and petrology, has been elected to a similar fellowship at Emmanuel College.

THE Soviet Government has granted to Professor Ivan Pavlov an appropriation of 184,000 roubles to complete the building of his biological station at Koltouchi, near Leningrad.

PRESIDENT HOOVER has announced the appointment of Colonel Charles A. Lindbergh to be a member of the National Advisory Committee for Aeronautics.

DR. PERCY E. RAYMOND, professor of paleontology at Harvard University, has returned from England, where he was a delegate from the Geological Society of America to the centenary meeting of the British Association for the Advancement of Science.

DR. OTTO SCHMIDT, German dye chemist and director of the Farbenindustrie Aktiengesellschaft, which is the German chemical trust, has arrived at the California Institute of Technology for a stay of three months, during which he will consult with leading American chemists. Dr. Schmidt will later visit industrial centers.

DR. A. E. GEE, who has spent two years at the University of California Scripps Institution of Oceanography in research on bacteriology, has left for his home in Canada.

DR. JAMES EWING, professor of pathology at the Cornell Medical College, delivered the annual discourse at the New York Academy of Medicine on November 5. His subject was "The University and the Medical Profession."

THE twenty-eighth Hanna lecture of the Western Reserve University Medical School will be given by Dr. E. D. Adrian, fellow of Trinity College, Cambridge, and Foulerton research professor of the Royal Society, London. Professor Adrian will give an illustrated lecture entitled "The Nervous Mechanism of Sensation and Movement."

COLONEL GEORGE A. SKINNER, of the medical corps of the U. S. Army, gave at the Mayo Institute a Mayo Foundation lecture on October 27. His subject was "Early Experiences in Tropical Medicine."

DR. CARL G. HARTMAN, of the department of embryology of the Carnegie Institution of Washington, showed a movie film on the "Parturition in a Monkey," at the recent meeting of the Central Association of Obstetricians and Gynecologists, before which he also made an address on "Ovulation in Man and Monkey." The film has also been exhibited to the German Medical Society of New York City.

THE inaugural lecture of the chair of anatomy at the University of Edinburgh was delivered on October 6 by Professor James Couper Brash, who has been elected to the chair of anatomy in succession to Professor Arthur Robinson, retired. Professor Sydney Smith, dean of the faculty of medicine, presided.

THE first public lecture under the Estlin Carpenter Educational Trust was given at Oxford by Sir Peter Chalmers Mitchell on October 13. His subject was "Life and Matter."

SIGMA PI SIGMA, honorary physics fraternity, held its convention at the University of Kentucky from November 5 to 7. Dr. W. F. G. Swann, director of the Bartol Research Foundation, gave the principal address.

THE U. S. Civil Service Commission announces that the position of principal physiological chemist at a beginning salary of from \$5,600 to \$6,400 a year is open for competitive examination. The examination is to fill a vacancy in the bureau of construction and repair, Navy Yard, Washington, D. C., and vacancies occurring elsewhere, for duty in Washington, D. C., or in the field. Applications must be on file with the U. S. Civil Service Commission at Washington not later than December 1, 1931.

ON October 17 and 18 a group of physiologists were guests at the Morris Biological Farm. They met in response to a resolution passed at a meeting of physiologists and others held on August 12 at the Marine Biological Laboratory, in Woods Hole, to consider the question of organizing a new journal of physiology intended to supplement those already existing and to relieve certain other journals, not devoted primarily to physiological subjects, of papers which

take space intended for zoological or anatomical matter. Those in attendance were as follows: Dr. E. N. Harvey, of Princeton University; Dr. M. H. Jacobs, of the University of Pennsylvania; Dr. E. K. Marshall, of the Johns Hopkins University; Dr. G. H. Parker, of Harvard University; Dr. A. C. Redfield, of Harvard University, and Dr. H. W. Smith, of New York University. The field to be covered by the journal was fully discussed, and a title and outline of its purposes were tentatively agreed upon. Dr. E. N. Harvey, of Princeton University, was selected as the managing editor, and certain other names were suggested as desirable members of the editorial board.

SIXTY-FIVE years ago A. Léotaud, an eminent ornithologist in Trinidad, completed his collection of birds on that island off the coast of Venezuela, and it was later installed in the Victoria Museum in Port of Spain. When this museum burned a few years ago all these specimens were destroyed, including several whose existence since has been doubted because recent collectors had not found similar species. Now, according to an announcement made by the Academy of Natural Sciences, Philadelphia, an expedition, comprising W. Wedgwood Bowen, assistant curator of birds in its department of vertebrate zoology, H. Radclyffe Roberts, of Villa Nova, and George R. Clark, of Cynwyd, has returned from a two-months stay in Trinidad with the most representative collection made since Léotaud's, and containing some of the disputed species, thus verifying his records.

THE University of Pittsburgh chapter of Sigma Xi announces the following series of public lectures on the culture of prehistoric man: November 18, "The Art of Paleolithic and Neolithic Man," by Dr. Andrey Avinoff, director of the Carnegie Museum of Pittsburgh; January 27, "Man, the Speaking Animal," by Dr. Melville Jean Herskovits, assistant professor of anthropology at Northwestern University; March 16, "The Origin and Development of Tools and Weapons," by Dr. Nels Christian Nelson, curator of prehistoric archeology at the American Museum of Natural History, New York City.

THE thirty-third annual meeting (the one hundred and seventy-fifth regular meeting) of the American Physical Society will be held in New Orleans at Tulane University, on December 29 and 30, in affiliation with Section B—Physics—of the American Association for the Advancement of Science. The preliminary arrangements for the New Orleans program include joint sessions with the American Mathematical Society on Tuesday morning and afternoon, with addresses by Dr. W. F. G. Swann, Professor G. D. Birkhoff and Professor G. A. Bliss, including the

Josiah Willard Gibbs lecture by Dr. P. W. Bridgman. On Wednesday morning there will be a joint session with Section B of the American Association for the Advancement of Science with the address of the retiring vice-president of Section B, Professor F. K. Richtmyer, and an address by Dr. H. H. Kimball. On Wednesday afternoon there will be a joint session with Section E of the association and the Society of Petroleum Geophysicists for a geophysical program.

ACCORDING to an announcement in *Nature* the Ninth International Congress of the History of Medicine will be held at Bucharest, under the presidency of Dr. V. Gomoiu, next September, when the principal subjects for discussion will be (1) the evolution of medicine in the Balkan States and (2) the protection of Europe against bubonic plague. Those wishing to contribute papers on these or other subjects are requested to forward the title and a typed copy of a summary of their paper to the office of the Congress, Str. Stirbey Voda 86, Bucharest II, without delay. The official languages will be English, French, German, Italian and Spanish. Members of the congress can take the direct route to Bucharest or meet at Trieste, whence visits will be paid to Athens, Constantinople and Constantza, where local committees will be arranged for their reception. The meetings of the congress will occupy four days, and the following three days will be devoted to a tour of Bucharest and excursions in the neighborhood. A program will be

issued later, giving the exact date of the congress and the amount of the subscriptions.

Nature reports that the twenty-second annual exhibition of electrical, optical and other physical apparatus is to be held by the Physical Society and the Optical Society from January 5 to 7, 1932, at the Imperial College of Science and Technology, South Kensington. The trade section will comprise the exhibits of manufacturing firms. The research and experimental section will be arranged in two groups: (a) exhibits illustrating the results of recent physical research; (b) lecture experiments in physics. The exhibition committee invites offers, from research laboratories and institutions and from individual research workers, of exhibits suitable for inclusion in either of the above groups. Offers of exhibits, giving particulars of space and other facilities required, should be communicated immediately, and in any case not later than November 9, to the secretary of the exhibition committee, 1 Lowther Gardens, Exhibition Road, London, S.W.7. The section for apprentices and learners has for its object the encouragement of craftsmanship and draughtsmanship in the scientific instrument trades. Apprentices and learners may exhibit, in competition, specimens of their work, providing they are in the regular employ of a firm which is exhibiting at the next annual exhibition, or has exhibited once during the past three years. Printed particulars of this section will be sent on application to the secretary.

DISCUSSION

CONCERNING AN INCREASE IN THE POTENCY OF MOSAIC VIRUS IN VITRO

IN an earlier paper one of us (O.)¹ published results of experiments which indicated that multiplication of the virus of tomato and tobacco disease had taken place in the absence of living cells. The work of J. Henderson Smith² and others cited by him has not been confirmatory of these results, and hence the subject has been studied anew.

About 3,000 tomato plants (with several thousand as controls) were utilized in a series of 30 experiments. In 6 of them the original technique was followed as closely as possible. In 24 the conditions were altered considerably. The hydrogen-ion concentration of the media was kept constant by diluting one part of filtered fresh normal plant juice with 2.5 parts of Northrop's buffer³ at pH=5.3, and the tests

were made under aerobic or anaerobic conditions, in the dark or sunlight. Fifteen experiments were carried out with Gates' U tubes,⁴ according to the method of Muckenfuss and Rivers⁵ with vaccine virus. A collodion sac containing fresh, lightly crushed, young plants in buffer solution was inserted in one arm of the tube and buffer solution containing filtered virus was placed outside the sac. The medium within the sac was replaced from one to seven times weekly. The tubes were kept at 28° C.

Almost always, irrespective of the method employed, there was some increase in the potency of the virus beyond the original titration. An increase has also been noted by McKinney.⁶ In the early experiments it was much greater than in the later ones, for reasons as yet not clear. There may conceivably be some cyclic variation in the virus. The question arises of whether the increase was due to an activation, or a

¹ P. K. Olitsky, *J. Exp. Med.*, 41: 129, 1925.

² J. H. Smith, *Ann. Applied Biol.*, 15: 155, 1928.

³ J. H. Northrop and P. H. de Kruif, *J. Gen. Physiol.*, 4: 639, 1922.

⁴ F. L. Gates, *J. Exp. Med.*, 35: 635, 1922.

⁵ R. S. Muckenfuss and T. M. Rivers, *J. Exp. Med.*, 51: 149, 1930.

⁶ H. H. McKinney, *J. Agric. Res.*, 35: 1, 1927.