

ganic compounds, especially by means of nickel, has been thoroughly elucidated by Professor Sabatier and his coworker, the Abbé Senderens. The industrial application of the process to the unsaturated acids of the oleic series has already acquired considerable industrial importance. It gives me great pleasure to announce the award, so well earned by Professor Sabatier.

The Hughes medal is awarded to Professor Paul Lanvegin, who has made valuable contributions to electrical science, both on the theoretical and experimental sides. He has found by experiment the rate of recombination and the mobility of ions produced by different processes in gases at various pressures, and he has made an exhaustive study of the theoretical aspects of the interdiffusion of gases and the mobility of ions.

#### MEMORIAL TO JOHN WESLEY POWELL

THE Department of the Interior has completed, on the rim of the Grand Canyon, in Arizona, a memorial to Major John Wesley Powell, the pioneer and distinguished man of science who first explored the Grand Canyon. The memorial is an altar decorated in Indian imagery and supporting a bronze tablet, resting upon a pyramidal base of rough-hewn stone. Fifteen steps lead from the west up to the altar floor, from which one may gaze into the very heart of the glowing mile-deep canyon. It is a structure worthy alike of the rugged, forceful personality of the man and of the titanic chasm which it overlooks.

The spot chosen for the memorial is Sentinel Point, a promontory south of the railway station, which commands a particularly fine view of the Granite Gorge and of the river, whose unknown terrors of whirlpool and cataract the Powell party braved in small open boats. The structure, which is built of weathered limestone from the neighborhood, has a rectangular base 21 by 28 feet. The altar carries on its east side a medallion portrait of Major Powell in bronze bas-relief by Leila Usher and the following inscription:

Erected by the congress of the United States to Maj. John Wesley Powell, first explorer of the Grand Canyon, who descended the river with his party in rowboats, traversing the gorge beneath this point August 17, 1869, and again September 1, 1872.

The general effect is unobtrusive, natural and appropriate. A few small, gnarled trees grow close by, but do not obstruct the view. The structure stands back from the edge sufficiently to permit visitors in considerable numbers to group themselves in front.

The memorial was planned at the International Geological Congress of 1904 in recognition of Major Powell's distinguished services as director of the United States Geological Survey. In March, 1909, Congress appropriated \$5,000 for the purpose, "in recognition of his distinguished public service as a soldier, explorer and administrator of government scientific work." Dr. H. W. Holmes chose the site.

The original plan was to make the memorial a Roman chair facing the canyon. Last spring Secretary Lane substituted an altar for the chair, and Mark Daniels, then general superintendent and landscape engineer of National Parks, designed the structure as it stands to-day.

It was then late in July, and Mr. Walter Ward, engineer of the Reclamation Service, had a difficult task before him to find and hew the rock and build the structure within the slender appropriation.

This memorial, so expressive of the spirit and character of the man whose life work it celebrates, and so admirably located, will be formally dedicated early next summer. If, as is expected, Congress meantime makes the Grand Canyon a national park (it is a national monument now), the two dedications will take place together, making a celebration altogether notable in the history of national parks.

#### SCIENTIFIC NOTES AND NEWS

DR. CHARLES R. VAN HISE, president of the University of Wisconsin and previously professor of geology, has been elected president of the American Association for the Advancement of Science, in succession to Dr. W. W. Campbell. The other officers elected at the Columbus meeting of the association and an account of the proceedings will be found elsewhere in the present issue of SCIENCE.

DR. JOHN M. CLARKE, New York state geologist and director of the State Museum, was elected president of the Geological Society of America at the recent Washington meeting.

DR. RAYMOND DODGE, professor of psychology at Wesleyan University, has been elected president of the American Psychological Association.

OFFICERS were elected at the New Haven meeting of the American Association of Anatomists as follows: *President*, Dr. Henry H. Donaldson, Wistar Institute; *Vice-president*, Professor Clarence M. Jackson, University of Minnesota; *Members of the Executive Committee*, Professor Eliot R. Clark, University of Missouri, and Professor Reuben M. Strong, University of Mississippi. Professor C. R. Stockard, Cornell Medical School, New York City, remains secretary of the Association.

OFFICERS of the Elisha Mitchell Scientific Society, Chapel Hill, N. C., for the year 1916 are as follows: *President*, Dr. J. B. Bullitt; *Vice-president*, Professor T. F. Hickerson; *Permanent Secretary*, Dr. F. P. Venable; *Recording Secretary and Treasurer*, John E. Smith; *Editorial Board of the Journal*: Dr. W. C. Coker, Professor Collier Cobb and Dean M. H. Stacy.

AT the annual dinner of the Geographic Society of Chicago, the gold medal of the society was presented to Major-General William C. Gorgas. The presentation address was made by Dr. Frank Billings. General Gorgas gave an address, entitled "Sanitation in Its Relation to Geography."

WE learn from the *Journal* of the American Medical Association that the Royal College of Physicians of London has awarded the Moxon gold medal to Dr. Dejerine, professor of diseases of the nervous system at the Faculté de médecine de Paris. This medal is awarded every three years to the scientist whose observations and researches in clinical medicine are deemed to render him most worthy of this distinction. The award of the medal is not reserved for scientists of British nationality, but up to the present it has been given only to English clinicians; Sir Alfred Garrod (1891),

Sir William Jenner (1894), Sir Samuel Wilkes (1897), William Tennant Gairdner (1900), John Hughlings Jackson (1903), Jonathan Hutchinson (1906), Sir William Richard Garvers (1909), Sir William David Ferrier (1912).

THE *British Medical Journal* states that the Leeuwenhoek gold medal of the Royal Academy of Sciences, Amsterdam, has been awarded to Surgeon-General Sir David Bruce. It is awarded every ten years in recognition of the most important work done during the decade on the microscopical organisms first discovered by Leeuwenhoek in 1675. The award sets out that it was the discovery of the *Micrococcus melitensis*, the cause of Malta or Mediterranean fever, which first made Bruce's name generally known. This was followed by the discovery of the cause of African cattle, or tsetse fly disease, known as Nagana. Afterwards he made extensive researches, with the help of a staff of assistants, into other tropical African diseases caused by trypanosomes, especially into sleeping or Congo sickness caused by the *Trypanosoma gambiense* and transported chiefly by the fly *Glossina palpalis*. The medal was presented at the meeting of the Academy of Sciences in Amsterdam on December 18.

SIR W. H. SOLOMON and Professor G. H. Bryan have been elected to honorary fellowships at Peterhouse, Cambridge.

MR. GEORGE L. FAWCETT, from 1908 until last February the plant pathologist at the Porto Rico Experiment Station at Mayaguez, and since that time occupying a similar position at the Experiment Station in Tucuman, Argentina, has been appointed professor of mycology and bacteriology at the University of Tucuman.

DR. WILLIAM H. WELCH, professor of pathology in the Johns Hopkins Medical School, who has been in China devising plans to introduce modern medical methods in the empire, and Dr. Simon Flexner, director of the laboratories of the Rockefeller Institute, reached San Francisco on December 27.

DR. FRANK ANGELL, professor of psychology in Stanford University, has sailed for England to take part in Belgian relief work.

PROFESSOR JOSEPH M. FLINT, of the Yale Medical School, has returned to New Haven after five months of work among wounded soldiers in the hospital at Chateau de Passy in France.

DR. JOHN F. ANDERSON, formerly director of the Hygienic Laboratory, United States Public Health Service, and now director of the research and biological laboratories of E. R. Squibb & Sons, New Brunswick, New Jersey, has sailed for England and France to study the methods in use in the armies of those countries for the prevention and treatment of wound infections.

PROFESSOR JACQUES LOEB, of the Rockefeller Institution for Medical Research, delivered an address on "Adaptation" at the meeting of the Philadelphia County Medical Society on December 8, which was followed by a reception and supper. The meeting was arranged by the committee of the medical society on cooperation among allied agencies and institutions.

DR. ALEXANDER C. ABBOTT, professor of hygiene and bacteriology, the University of Pennsylvania, delivered an illustrated lecture on "The Transmissibility of Diseases and the Public Health" at Franklin Institute on the evening of December 15.

DR. HENRY E. CRAMPTON, of Columbia University and the American Museum, delivered the oration before the Phi Beta Kappa Association of the University of Pennsylvania on December 4. Dr. Crampton took for his subject "Science, Culture and Human Duty."

PROFESSOR EDWARD KASNER, of Columbia University, spoke on "Some Unsolved Mathematical Problems" at the College of the City of New York on December 16.

THE Herbert Spencer Lecture at Oxford University for 1916 will be delivered by Professor J. Mark Baldwin. The subject of the lecture is not yet announced.

THE Croonian Lecture of the Royal Society was delivered on December 9, by Dr. W. M.

Fletcher and Professor F. G. Hopkins, on "The Respiratory Process in Muscle, and the Nature of Muscular Motion."

A BRONZE portrait plaque has been placed in the Evans Dental Institute, to the memory of W. D. Miller, a graduate of the Dental School of the University of Pennsylvania, class of 1879. The plaque is the gift of the International Dental Federation. At the annual convention held in Berlin in 1909, a resolution was passed to present a bronze memorial plaque to the Dental School of the University of Pennsylvania, dedicated to one of its most distinguished graduates, W. D. Miller, who was a distinguished scientific man and one of the most eminent men in his profession.

DANIEL GIRARD ELLIOT, distinguished for his contributions to mammalogy and ornithology, died at his home in New York City, on December 24, aged eighty-one years.

DAVID WILLIAMS CHEEVER, emeritus professor of surgery in the Harvard Medical School, died at his home in Boston, on December 27, in the eighty-fifth year of his age.

DR. JAMES HOLMS POLLOK, for many years on the staff of the Royal College of Science for Ireland, in the chemical department of which he was lecturer on physical and metallurgical chemistry, died on November 26.

MR. C. J. WOLLASTON, known for his pioneer work in submarine telegraphy, has died at ninety-five years of age.

THE death is announced of Charles René Zeiller, a member of the French Institute, chief engineer of mines and professor of paleobotany in the Paris School of Mines.

ADOLPHE GREINER, director-general of the foremost steelworks in Belgium, this year president of the Iron and Steel Institute, died at his residence near Liège on November 20, aged seventy-three years.

THE United States Civil Service Commission announces an open competitive examination for fish pathologist in the Bureau of Fisheries on January 19, 1916. The duties of the fish pathologist are primarily to investigate the causes, the nature and the effects of

disease of fish or shellfish, physiological or environmental conditions associated with the development of pathological phenomena, and the means of prevention or cure. The investigation of stream pollution is involved, as well as the study of the physical, chemical and biological conditions that may be salutary or deleterious to fish. Competitors will be examined in general biology, physiologic chemistry and parasitology, with particular reference to aquatic animals. Credit will be given for thesis and manuscript or published reports. Graduation with a bachelor's degree from a course in a college or university of recognized standing and, in addition at least two years of postgraduate work, or the equivalent, in chemistry or biology are prerequisites for consideration for this position. The salary is \$2,500 per annum.

THE Weather Bureau asks for an appropriation of \$30,000 for extending the Carribean weather observations with a view to a system of communication of "considerable value in connection with the military and naval operations in the canal zone." Instead of observations once a day during a seven months' period at an inadequate number of stations, a continuous all-year-round service would be established at additional stations in South and Central America and along the southern gulf coast. A \$25,000 structure on the canal zone to serve as the official headquarters for the weather service in that section also is planned.

THE equipment of the department of entomology at the University of Illinois, and of the natural history survey of that state, receives a notable addition in the new vivarium building in Champaign, which will contain a large insectary for student use, with three laboratory rooms in connection, an apparatus, furnished conjointly by the university and the State Laboratory of Natural History, for temperature and humidity control in the study of insect life histories, and a set of experimental aquaria fitted up for exact studies on the ecology of fresh-water animals. The insectary and entomological laboratories will be under the charge of Dr. R. D. Glasgow, and the state

laboratory equipment under that of Dr. V. E. Shelford, of the laboratory staff.

THE *Journal* of the American Medical Association says: "On last Monday, December 20, the Supreme Court of Illinois rendered a ruling—it was not a decision, as the newspapers stated, but simply a ruling—in the case of *Lydston vs. the State's Attorney*. The newspapers, in sweeping statements—inspired?—have carried the impression that the ruling is against the American Medical Association; that the officers, including trustees, are holding their offices illegally; that a new election must be held immediately, etc. Nothing could be farther from the truth. It is the old story; it is merely another step in the case started about the time of the meeting of the American Medical Association in St. Louis in 1910, at which time Lydston tried to compel the state's attorney to bring *quo warranto* proceedings against the association. The American Medical Association has not yet technically been brought into the case; thus far the issue has been between Lydston and the state's attorney. The technical announcement of the ruling just made is "*Hoyne, State's Attorney vs. People ex rel; Lydston; petition certiorari denied.*" The state's attorney tried to get a decision from the Supreme Court, but the Supreme Court declined to hear the case at this time and therefore denied the writ of certiorari.

ACCORDING to a press dispatch proposed legislation to create a government bureau of volcano observation is under consideration. The project, as outlined to congressional leaders by T. A. Jagger, of the Massachusetts Institute of Technology, a delegate to the Pan-American Scientific Congress, contemplates the securing of information on which ultimately predictions of volcanic disturbances may be based as well as studies of gases and liquids in the earth which may prove of value in connection with weather observations. There are said to be between four hundred and five hundred living volcanoes in the world, about one fourth of which are within United States territory, in Alaska, Hawaii and the Philippines.

THE fifth annual meeting of the Oklahoma Academy of Science was held at Oklahoma City, Oklahoma, November 26 and 27, 1915. Thirty-five papers, dealing with various phases of biology, physics, chemistry and geology were presented. The address by the retiring president, Mr. Chas. W. Shannon, director of the Oklahoma Geological Survey, dealt with the work of the Oklahoma Academy of Science and its connection with the scientific work of the state. The following officers were elected for the ensuing year:

*President*, Chas. N. Gould, Oklahoma City.

*First Vice-president*, L. Chas. Raiford, Stillwater.

*Second Vice-president*, L. B. Nice, Norman.

*Secretary*, G. K. Stanton, Enid.

*Assistant Secretary*, Ethel L. McCafferty, Enid.

*Treasurer*, H. H. Lane, Norman.

*Curator*, Fritz Aurin, Norman.

The next meeting of the academy will be held in November, 1916, at the time and place of the meeting of the Oklahoma State Teachers' Association.

THE Stanford University Medical School announces the thirty-fourth course of Popular Medical Lectures to be given in Lane Hall on alternate Friday evenings as follows:

January 14. "Medical Research and Its Relation to General Medicine," by Dr. George H. Whipple, director of the Hooper Foundation for Medical Research.

January 28. "The Economic Aspect of Disease," by Murray S. Wildman, Ph.D., professor of economics.

February 11. "Disease Carriers," by Dr. W. A. Sawyer, secretary, California State Board of Health.

February 25. "The Relation of Hospitals to the Community," by Dr. George B. Somers.

March 10. "Locomotion in Health and Disease," by Dr. Walter F. Schaller.

March 24. "Mental Hygiene," by Lilien J. Martin, Ph.D., professor of psychology.

#### UNIVERSITY AND EDUCATIONAL NEWS

By the will of Miss Rose Hollingsworth, of Boston, the Massachusetts Institute of Tech-

nology, Radcliffe College, Mount Holyoke College and the Tuskegee Industrial Institute each receive \$5,000. Five hundred dollars are bequeathed to the Gray Herbarium, the National Association of Audubon Societies, the Society for the Protection of Native Plants, the American Forestry Association and to the Massachusetts Forestry Association.

A GIFT of \$75,000 has been announced to the Harvard Medical School. This is the balance of the bequest of Morrill Wyman, who established the Morrill Wyman Medical Research Fund, the income of which is to be applied in promoting investigation concerning the origin, results, prevention and treatment of disease.

THE executors of the estate of the late Lord Strathcona have notified Queen's University, Kingston, that the \$100,000 left to that university is now available and ready to be paid.

A VALUABLE collection of periodicals, monographs and other medical books, consisting of more than 4,000 volumes, has been presented to the Johns Hopkins Hospital by Dr. Howard A. Kelly.

PROFESSOR HENRY A. PERKINS, of the department of physics, is acting president of Trinity College during the absence of President Luther.

#### DISCUSSION AND CORRESPONDENCE THE ORIGIN OF THE "NITER SPOTS" IN CERTAIN WESTERN SOILS<sup>1</sup>

IN a recent issue of SCIENCE, under the above title, Sackett and Isham<sup>1</sup> discussed this important question but conveyed no actual information regarding either the meaning of the term "niter spot" or its origin. They merely select for discussion a single point out of the great mass of available material so that the general scientific reader to whom an appeal is thus made through the columns of SCIENCE is left in doubt as to what it is all about. In order to clarify the matter for the average reader, it seems advisable to submit some definite information on the subject in

<sup>1</sup> Sackett and Isham, SCIENCE, Vol. XLII., p. 452, October 1, 1915.