

jellies, glues and coloring matters; chemical and bacteriological studies of milk and its products; soil tillage studies with special reference to the movement and utilization of soil moisture; studies in plant physiology; investigation of the effect of climatic factors upon plant growth; and careful observations on the relation of birds to agriculture. It is also hoped to study further the efficient use of farm crops for both human and animal food.

"It is not expected to put all of this program into effect at any one time, but to develop it gradually as circumstances permit," says Dr. Thatcher. "The first consideration in carrying out the program, however, is increased laboratory space, as the present laboratories are already overcrowded and will not permit of any expansion of the work. The immediate provision of a new laboratory building is essential if the research work of the station is to progress as it should. The people of the state are asked to back a campaign in the legislature for this building and program, because it is certain that the necessary expenditure will be returned to the state many times over in the increased wealth and prosperity of its agricultural population."

THE CENTENARY OF PASTEUR'S BIRTH

FRANCE'S homage to Louis Pasteur, on the occasion of the centenary of his birth, began on December 24 with a ceremony in the Pasteur Institute. Delegations from scientific bodies, headed by Dr. Pierre Roux and Dr. A. C. Calmette, of the Pasteur Institute, marched in procession before the tomb of Pasteur, which is a crypt in the institute. Afterward Dr. Pozerski of the institute delivered a lecture on Pasteur's life and work.

On December 26 the centenary was observed by the Paris Academy of Medicine, when addresses were made by Professor Behal, president of the academy, and Dr. Calmette, of the Pasteur Institute.

Numerous celebrations were held in France and throughout the world on December 27. Cardinal Dubois celebrated mass in the Paris church where Pasteur worshipped. Pasteur's daughter, Mrs. Valery Radot, and her husband and son were present. President Millerand presided over a memorial ceremony at the

Pasteur Institute, where Dr. Pierre Roux, director of the institute, delivered the address.

In this country there were special exercises in Philadelphia on December 27, the principal addresses being made by Ambassador Jusserand and Dr. Hugh S. Cumming, surgeon-general, U. S. Public Health Service. Messages of appreciation were read from President Harding, Mr. Wilson, Chief Justice Taft and many others.

At the American Museum of Natural History in New York there was a meeting at which Dr. George F. Kunz, president of the New York Mineralogical Club, presided. The speakers were M. Gaston Liebert, French consul general; Dr. Henry Fairfield Osborn, president of the American Museum of Natural History; Dr. Hermann M. Biggs, state health commissioner; Dr. George D. Stewart, president of the New York Academy of Medicine; Dr. Pierre Lecomte du Nouy and Dr. Hideyo Noguchi, of the Rockefeller Institute; Major Henry J. Nichols, United States Army, and Professor C.-E. A. Winslow, of Yale University.

The Federation of American Societies for Experimental Biology, meeting at Toronto, arranged a dinner at which addresses were given by Professor Graham Lusk, of the Cornell Medical School, and Professor F. G. Novy, of the University of Michigan.

The centenary is being celebrated by the New Academy of Medicine. A public exhibition which opened on December 27 will continue until January 10. It includes books, portraits, statues, medallions and other objects intimately connected with Pasteur and his work. Commemorative exercises will be conducted in the Academy of Medicine on the evening of January 10.

SCIENTIFIC NOTES AND NEWS

A SPECIAL number of SCIENCE containing the address of the retiring president of the American Association for the Advancement of Science and the proceedings of the association, of the sections and of the affiliated national scientific societies meeting at Boston during convocation week will be issued next week, or as soon thereafter as the material can be col-

lected and edited by the permanent secretary of the association.

DR. CHARLES D. WALCOTT, secretary of the Smithsonian Institution and president of the National Academy of Sciences, formerly director of the United States Geological Survey, has been elected president of the American Association for the Advancement of Science.

PROFESSOR B. M. DUGGAR, of Washington University, has been elected president of the Botanical Society of America; Dr. J. R. Schramm, of the division of biology of the National Research Council, vice-president; Professor I. F. Lewis, of the University of Virginia, secretary, and Professor I. W. Bailey, of Harvard University and the Bussey Institution, treasurer.

PROFESSOR T. D. A. COCKERELL, of the University of Colorado, was elected president of the Entomological Society of America at the Boston meeting. Professor William S. Marshall, of the University of Wisconsin, was chosen first vice-president; F. E. Lutz, of the American Museum of Natural History, New York City, second vice-president; C. L. Metcalf, of the University of Illinois, secretary-treasurer; and Professor Herbert Osborn, of the Ohio State University, managing editor of the annals.

At the meeting of the American Psychological Association held at Harvard University last week, Professor Lewis M. Terman, of Stanford University, was elected president and Dr. John E. Anderson, of the Johns Hopkins University, secretary.

THE government of Japan has granted to Dr. David Starr Jordan the decoration of the "Order of the Rising Sun with a double series of rays" as "an expression of the nation's recognition and gratitude for the useful and unselfish services rendered for its sake." The decoration was presented through President Kozai and Professor Watasè of the Imperial University of Tokyo.

A DINNER in honor of Professor E. L. Mark, of Harvard University, who was seventy-five years old last May, and was recently retired with the title of Hersey professor of anatomy, emeritus, was given in Boston on December 27.

FRIENDS of Professor Charles Frederick Chandler, of Columbia University, presented in 1910 to the university a sum of money which constitutes the Charles Frederick Chandler Foundation. The income from this fund is used to provide a lecture by an eminent chemist and a medal to be presented to the lecturer in recognition of his achievements in science. The lecturer this year is Robert Eckles Swain, professor of chemistry and head of the department of chemistry of Stanford University, who will speak in Havemeyer Hall on "Atmospheric pollution by industrial wastes" on January 9.

DR. PERCY BROWN, roentgenologist at the Jackson Clinic, Madison, Wis., was awarded the gold medal of the Roentgenological Society of North America at its recent meeting in Detroit. Dr. Brown was formerly president of the society and received the medal because of his distinguished scientific research in X-ray diagnosis and therapy. The medal has been awarded to Madame Curie, of Paris; Dr. Gosta Forsell, of Stockholm, and Dr. Maude Slye, of Chicago.

SIR WILLIAM H. BRAGG, Quain professor of physics in the University of London, has been elected a corresponding member of the Paris Academy of Sciences in the section of physics.

SIR SIDNEY F. HARMER, director of the natural history departments of the British Museum, has been elected an honorary fellow of King's College, Cambridge.

THE Italo-American Association of Rome gave a farewell reception on December 21 in honor of William Marconi, who left on December 22 for the United States. The reception also was in celebration of the twentieth anniversary of the uniting of the United States and Europe by wireless telegraphy. Senator Maggiorino Ferraris made an address of welcome, to which Mr. Marconi responded, saying that his association with the United States had been close and continuous from the time of the commencement of his work on radio telegraphy.

THE war department awarded on December 5 the distinguished service medal to Joaquin E. Zanetti, lieutenant colonel of the Chemical Warfare Service, U. S. A., "for exceptionally

meritorious and distinguished services as chief liaison officer of the Chemical Warfare Service with the French forces. His untiring energy, thorough familiarity with the French language and methods and his superior technical ability enabled him to gather an enormous amount of detailed information concerning the manufacture, handling and use of gases, which were of inestimable value to our government in the manufacture and supply of chemical warfare materials in the United States." The presentation was made by Major General Bullard at Governor's Island, N. Y., on December 21.

THE friends of Amos W. Butler on December 20 in Indianapolis tendered him a dinner to celebrate his notable success during twenty-five years as secretary of the State Board of Charities. About two hundred and fifty were in attendance. Addresses were made by Governor Warren T. McCray, Dean C. H. Eigenmann, Dr. S. E. Smith, Dean Stanley Coulter and Alexander Johnson, first secretary of the Indiana Board of State Charities. Mr. Butler organized the Brookville Society of Natural History, which in 1885 gave birth to the Indiana Academy of Science, of which he was for many years the executive secretary and president. He has been an active member of other Indiana associations and is at present president of the Indiana Historical Society.

At the annual meeting of the Academy of Natural Sciences of Philadelphia held December 19, John Cadwalader, LL.D., retired from the presidency, which he had occupied since 1918. The following officers, councilors and elective committees were elected to serve for the year 1923: *President*, Richard A. F. Penrose, Jr., Ph.D.; *vice-presidents*, Edwin G. Conklin, Ph.D., Henry Skinner, M.D., Sc.D.; *recording secretary*, James A. G. Rehn; *corresponding secretary*, J. Percy Moore, Ph.D.; *treasurer*, George Vaux, Jr.; *librarian*, Spencer Trotter, M.D.; *curators*, Witmer Stone, Sc.D., Henry A. Pilsbry, Sc.D., George L. Harrison, Jr., T. Chalkley Palmer; *councilors to serve three years*, John Cadwalader, LL.D., Robert G. LeConte, M.D., Milton J. Greenman, M.D., Morgan Hebard; *councilors to serve unexpired terms*, Thomas S. Gates, Henry Tucker, M.D.; *committee on accounts*, Roswell C. Williams, Jr., Samuel N. Rhoads,

John G. Rothermel, Thomas S. Stewart, M.D., Walter Horstmann.

At the annual meeting of the American Social Hygiene Association, held in New York on November 3, under the presidency of Dr. Hermann M. Biggs, the following officers were elected for the ensuing year: *President*, Dr. Hermann M. Biggs, New York City; *vice-presidents*, Drs. Ray Lyman Wilbur, San Francisco, Dr. William S. Keller, Cincinnati, Dr. William A. Evans, Chicago, and Mrs. Joseph T. Bowen; *secretary*, Dr. Donald R. Hooker, of the Johns Hopkins University. It was announced that the *Journal of Social Hygiene* will appear, January, 1923, as a monthly, the new publication taking the place of the *Social Hygiene Bulletin*. Professor Maurice A. Bigelow, of Teachers College, Columbia University, is editor-in-chief of the new journal.

PROFESSOR O. F. STAFFORD, head of the department of chemistry of the University of Oregon, has returned to his university work at Eugene, after a leave of absence of four years' duration devoted to industrial research in the field of waste wood utilization by destructive distillation.

CARL G. SCHLUEDEBERG, president of the American Electrochemical Society, left recently for a four months' trip in the Orient to study business conditions.

PROFESSOR H. S. FAWCETT, of the Citrus Experiment Station of the University of California, is spending a sabbatical year in southeastern Russia. He is engaged in relief work of the American Friends Committee at Soroehinskya. He expects to return in the summer of 1923.

DR. WALTER ROSENHAIN, head of the metallurgical department of the British National Physical Laboratory, will visit the eastern United States during February and March, 1923, lecturing before various universities and scientific organizations.

THE annual Gross lecture for 1922 of the Pathological Society of Philadelphia has been delivered by Professor Warren H. Lewis, of the Department of Embryology of the Carnegie Institution, on "Pathological changes in cells in tissue cultures."

PROFESSOR JOHN HUNTER, of the University of Sydney, Australia, lectured recently at the Evans Institute of the University of Pennsylvania on "The evolution of the brain in the light of modern discoveries."

PROFESSOR SUMMERFELD is to spend two weeks at the California Institute of Technology beginning January 24. He will deliver eight lectures covering the following topics: Quantic conditions, especially for more than one moving particle; Atomic structure and periodical system; Quantization in space, theory of magneton; Principles of selection in the visible and the X-ray part of the spectrum; Line structure of complicated spectra treated by the method of inner quantic numbers.

BEFORE the Franklin Institute on December 20 Dr. W. F. G. Swann, professor of physics, University of Minnesota, lectured on "Unsolved problems of cosmical physics."

THE fourth Harvey Society lecture which was to have been delivered at the New York Academy of Medicine on January 13, by Dr. William T. Bovie, assistant professor of biophysics, Harvard University, on "The physiological effects of light rays," has been postponed until January 20.

A CONVOCATION commemorative of the births of Mendel and Pasteur was held at St. Louis University on the evening of December 14. After introductory addresses by Chancellor Frederic A. Hall of Washington University and Professor Frederick M. Tisdell, dean of the College of Arts and Sciences of the University of Missouri, who represented President John Carleton Jones, the main addresses of the evening were delivered by Professor H. S. Jennings, on "Mendel, the Scientist," and Professor Victor C. Vaughan, "Pasteur, the Scientist." The exercises were concluded by the presiding officer, President William F. Robison, with an address, "Science and the Man."

WE learn from *Nature* that a memorial window in Westminster Abbey in remembrance of Sir J. W. Wolfe Barry, past president of the Institution of Civil Engineers, was dedicated on December 7 by the dean of Westminster. The window, which is in the nave, contains the figures of two angels holding tablets on which are inscribed the words "In Memory of John

Wolfe Barry, K.C.B., F.R.S., Civil Engineer. Born 1836. Died 1918." Below the tablets are shields showing, among others, the arms of the Institution of Civil Engineers, of the University of London, and Sir John Wolfe Barry's personal arms.

A STATUE of Professor Adolf von Baeyer was unveiled in the Botanic Garden of the University of Munich on October 20. Professor Willstätter spoke on behalf of the university, and Dr. Duisberg on behalf of the Association of Dye Manufacturers, Professor Seeliger for the Bavarian Academy of Sciences and Dr. Lepsius for the German Chemical Society.

THE international fund in honor of Lord Lister has been closed, the amount received being sufficient to provide a prize of £2,800 (about \$13,000), to be awarded triennially for the most important advancement made in surgery, irrespective of nationality. This prize will be awarded on the anniversary of Lord Lister's birth.

DAVID LINDSAY, the explorer, whose pioneer investigations were in part responsible for the discovery of the great West Australia gold field, died recently in Australia at the age of 66 years.

THE death is announced of Dr. H. Obersteiner, professor emeritus of the physiology and pathology of the central nervous system at the University of Vienna, aged seventy-five years.

AN Associated Press dispatch from Paris states that the first sub-committee of the League of Nations Intellectual Cooperation Commission, presided over by Professor Henri Louis Bergson, which has had under discussion the question of the extension of the rights of scientists so that they may be able to share in the benefits derived from the application of their discoveries, has concluded its work. Professor Ruffini, of Turin University, was commissioned to draft a plan for the legal protection of scientific work. After approval by the commission and the council of the League of Nations the plan would serve as a basis for legislation by parliaments of the different countries of the world.

THE annual general meeting of the Amer-

ican Philosophical Society will be held on April 19, 20 and 21, beginning at 2 P.M. on Thursday. Members are requested to send to the secretaries, at as early a date as practicable and before February 22, 1923, the titles of papers which they intend to present, so that they may be announced in the *preliminary* program which will be issued immediately after that date and which will give in detail the arrangements for the meeting. It is understood that papers offered are original contributions which have not been theretofore presented. The publication committee, under the rules of the society, will arrange for the immediate publication of the papers presented in either the *Proceedings* or the *Transactions*, as may be designated.

THE first regular meeting of the Georgia Academy of Sciences was held at the University of Georgia on December 1 and 2, 1922. Twenty-five members were elected as charter members and fifteen more may be elected during the coming year. Membership in the academy is limited to those residents of Georgia who have made notable contributions to science or to its advancement in the state and can not exceed fifty in number. The officers elected for the first year are: *President*, Dr. R. P. Stephens, mathematics, University of Georgia; *vice-president*, Dr. T. P. Branch, civil engineering, Georgia School of Technology, Atlanta; *secretary-treasurer*, Dr. Henry Fox, biology, Mercer University, Macon.

THE Rochester Section of the American Chemical Society has secured Professor Th. Svedberg, University of Upsala, Sweden, to act as presiding officer of a symposium on physical chemistry which will be held in Rochester on January 19 and 20. Papers will be presented by prominent physical chemists from Schenectady, Cornell, Syracuse, Buffalo and Rochester. Practically every phase of physical chemistry will be dealt with, with the exception of colloids. On this phase there will be no papers since a colloid symposium will be held at the University of Wisconsin later in the year. The Rochester Section extends an invitation to those interested in this physical chemistry symposium to be present and to take part either in the presentation of papers, or in the discussion which will follow the papers.

THE annual meeting of the British Association of Economic Biologists was opened in the Botanical Department of the University of Manchester on December 15. Dr. W. Lawrence Balls introduced a discussion on genetics in relation to applied biology. After dinner there were informal discussions on the place of applied biology in universities and on the relation of biology to medicine. A visit was paid to the British Cotton Industry Research Association at Didsbury.

AN expedition for zoological exploration will be maintained in Honduras and British Honduras by the Field Museum of Natural History in the early months of 1923. Mr. Karl P. Schmidt, assistant curator of reptiles and amphibians, accompanied by Mr. L. L. Walters, taxidermist, will leave New Orleans in January for Belize, British Honduras. After a short stay in the coastal region of British Honduras, in the nature of a reconnaissance, the party will proceed to Honduras, establishing a base at Lake Yojoa, in the interior. Collections of fishes, amphibians, reptiles and mammals will be made in this little known region. The fishes of Lake Yojoa appear to be entirely unknown. It is planned to secure material which will enable the Department of Zoology to prepare specimens and habitat groups for exhibition, representing the rich and varied amphibian and reptile life of Central America.

THE Edible Gelatin Manufacturers of America, Incorporated, announces the establishment of an industrial fellowship in the Mellon Institute of Industrial Research of the University of Pittsburgh, for the purpose of ascertaining the real food value of edible gelatin in its manifold applications in the American dietary. In addition to experimental investigations, a correlation of available facts regarding edible gelatin will be made, to be held at the disposal of all users. The present incumbent is Dr. Thomas B. Downey, who will be glad to furnish information to those interested in the uses of edible gelatin.

REPRESENTATIVE CABLE, of Ohio, has offered a resolution in the House, requiring the use with immigrants of the "intelligence tests" used by the army. The resolution has the approval of the house committee on immigra-

tion, and the indications are that experiments will be made to find out whether the proposed system is superior to the tests now used. The resolution sets forth that intelligence tests have been given to soldiers of the United States during and since the World War; applied by the United States Public Health Service to a limited number of immigrants of doubtful admission; used by the United States in civil service examinations; in schools, colleges and universities in classifying pupils and students; by insurance and other large companies in selecting salesmen; in large industries for classifying men in work most adaptable to them, and by business enterprises in the selection of office forces. Students of the problems relating to immigration have indicated a belief that the standard of immigrants seeking admission to the United States may be raised by the application of the intelligence tests, and the secretary of labor and the surgeon general of the United States Public Health Service have full power and authority to apply such tests. The resolution directs the secretary of labor and the surgeon general of the Public Health Service to inform the House why scientific data, including the intelligence tests, can not be applied in all cases for the exclusion of undesirable immigrants.

UNIVERSITY AND EDUCATIONAL NOTES

THE Rockefeller Foundation and the General Education Board have each given \$1,250,000 to the College of Medicine of the State University of Iowa. The legislature will be asked to appropriate \$2,500,000 at the rate of \$450,000 a year for the building and equipment of hospitals and laboratories.

THE sum of \$50,000 left by the late Charles S. Baylis reverts to the Brooklyn Polytechnic Institute by the death of Mrs. Baylis on November 15.

DR. JOSIAH H. PENNIMAN was elected provost, or the "educational or academic head" of the University of Pennsylvania, on December 27. He had been acting provost since the resignation of Dr. Edgar Fahs Smith about three years ago. At the same time the board of trustees created an "executive administrative" office, to be known as the "president of

the university." This is the position that it was planned should be filled by General Leonard Wood.

D. W. MOREHOUSE, professor of physics and astronomy at Drake University, has been elected dean of the college of liberal arts.

AT Yale University, Dr. Lorande Loss Woodruff, professor of biology, has been elected professor of protozoology.

DR. MORRIS S. KHARASCH, formerly national research fellow in organic chemistry at the University of Chicago, has been appointed associate professor of organic chemistry at the University of Maryland.

DR. RICHARD C. LORD, at one time instructor at Washington and Lee University and later engaged in industrial chemistry, has been elected assistant professor of chemistry and physics at Kenyon College, Gambier, Ohio.

AT Dartmouth College, Assistant Professor R. D. Beetle has been promoted to a full professorship of mathematics, and Assistant Professor C. E. Wilder, of Northwestern University, has been appointed to an assistant professorship.

DISCUSSION AND CORRESPONDENCE

THE INDEXING OF BIOLOGICAL LITERATURE

I HAVE been much interested in Dr. Schramm's excellent discussion in *SCIENCE* of November 3, and since the whole subject of abstracting and indexing is up for reconsideration, it may be opportune to add a few remarks from a zoological standpoint.

It may fairly be said that American zoologists do not pay enough attention to the literature of their subject outside of the very narrow field of their specialty. In spite of the broadening tendencies of modern genetic research, we do not seem to be able to escape from a narrowness which sometimes prevents those working on one group from even being aware of the existence of distinguished colleagues specializing in another. Thus it comes about that the development of numerous special journals, necessary as these are, is actually detrimental to zoology as a whole if there is no broader survey of the field which specialists