

introduced the members of the delegation and J. V. N. Dorr and Robert E. Swain made brief addresses.

#### ENGINEERING AND AGRICULTURE AT THE BERKELEY MEETING OF THE AMERICAN ASSOCIATION

At the meeting of the American Association for the Advancement of Science to be held in Berkeley from June 18 to 23, joint sessions will be sponsored by the Institute of the Aeronautical Sciences and the American Society of Mechanical Engineers. Cooperating with these groups are the Section of Hydrology of the American Geophysical Union, the Pacific Coast Section of the Society of Agricultural Engineers and the Western Inter-State Snow Survey Conference.

Subjects to be discussed will include various phases of fluid mechanics, structures of aircrafts, transport and management problems in aviation, engines and propellers. The meetings will cover three days, June 19, 20 and 21. At a dinner meeting on June 20, presentation of the Daniel Guggenheim Medal will be made by Major E. E. Aldrin, president of the Daniel Guggenheim Medal Fund.

With the exception of one session, all meetings will be held at the University of California. The section on engines and propellers will be held at Stanford University. The program also includes an inspection trip to Sunnyvale Air Base.

Institutions and organizations represented in the

meetings by papers and discussions include: University of California; California Institute of Technology; Columbia University; United States Bureau of Agricultural Engineering; Byron-Jackson Company; Worthington Pump and Machinery Company; California Farm Bureau Federation; Oregon State Agricultural College; University of Illinois; Standard Oil Company; Pacific Gas and Electric Company; Stanford University; Douglas Aircraft Company; Sperry Products, Incorporated; University of Washington; Boeing School of Aeronautics; United States Navy; Townsend Corporation; Nevada Agricultural Experiment Station; Washington Water Power Company.

Plans have been made for a three-day conference on land-use planning with Dr. Laurence Dudley Stamp, of the University of London, director of the land utilization survey of Great Britain, as one of the principal speakers. Dr. Stamp will speak on the opening day of the conference on "Land Utilization Survey of Britain, Its Aims, Methods of Work and Progress, and the International Significance of Some of the Problems Involved."

Other speakers on the tentative program include: Dr. L. C. Gray, U. S. Department of Agriculture; President H. L. Shantz, of the University of Arizona; Dr. C. L. Alsberg, of Stanford University; Paul Eke, of the University of Idaho; Rex Willard, Washington State College, and a number of representatives of the University of California.

## SCIENTIFIC NOTES AND NEWS

A MEMORIAL meeting in honor of the late Dr. William H. Welch will be held in connection with the Berkeley meeting of the American Association for the Advancement of Science. The principal address will be made by Dr. Ray Lyman Wilbur, president of Stanford University and formerly dean of its medical school. Dr. Welch was president of the association in 1906.

ON the occasion of the celebration of the sixty-ninth birthday of King George, the knighthood of the Order of the British Empire was conferred on Dr. Frederick Grant Banting, professor of medical research at the University of Toronto, and on Dr. Charles Edward Saunders, who served the Dominion Government for twenty years in the Experimental Farms Branch.

DR. HANS ZINSSER, professor of bacteriology and immunology at the Harvard Medical School, will go to the University of Paris for the second half of the academic year, 1934-35, as exchange professor from Harvard University. Dr. Jules Blache, professor of physical geography at the University of Grenoble,

will be exchange professor from France at Harvard for either the first or the second half of the year.

THE University of Wisconsin will confer at commencement an honorary degree on Dr. Karl Taylor Compton, president of the Massachusetts Institute of Technology.

MCGILL UNIVERSITY conferred on May 29 the degree of doctor of laws on Dr. Frederick M. Becket, of New York, president of the Electro-Metallurgical Company and of the Union Carbide Company.

THE degree of doctor of science was conferred on May 16 by the University of Manchester on Dr. Archibald V. Hill, since 1926 Foulerton research professor of the Royal Society. Dr. Hill was formerly professor of physiology at the university.

THE doctorate of science was conferred upon Dr. R. B. Teusler, director of Saint Luke's International Medical Center, Tokyo, Japan, at the commencement exercises of the Medical College of Virginia on May 27. Dr. Teusler is an alumnus of the college.

A TESTIMONIAL dinner was given to Dr. A. A. Berg, surgeon of the Mount Sinai Hospital, on May 18 on the occasion of his retirement from the staff after serving for forty years. Dr. Berg plans to continue his private practise.

A COMPLIMENTARY dinner to R. H. Burne was held in London on May 10 on the occasion of his retirement from the physiological curatorship of the Museum of the Royal College of Surgeons of England after forty-two years in the service of the college. The chair was taken by Sir Holburt Waring, the president of the college, and among those present were Sir Cuthbert Wallace, Sir Arthur Keith, Sir Arthur Smith Woodward, Sir Peter Chalmers Mitchell, Dr. Tate Regan and Sir Buckston Browne.

DR. EDWARD W. SCRIPTURE, honorary professor of experimental phonetics at the University of Vienna, celebrated his seventieth birthday on May 21. Dr. Scripture was formerly assistant professor of psychology and director of the psychological laboratory at Yale University and from 1909 to 1914 associate in psychiatry at Columbia University.

*Nature* states that Professor Camille Sauvageau, professor of botany at the University of Bordeaux, and Professor G. Otto Rosenberg, professor of botany in the University of Stockholm, were elected foreign members of the Linnean Society at the meeting on May 10 to fill the vacancies caused by the deaths of Professor K. von Goebel and Dr. Erwin Baur.

PROFESSOR W. J. DAKIN, Challis professor of zoology in the University of Sydney, has been elected president of the Linnean Society of New South Wales.

DR. KARL HAUSHOFER, professor of geography in the University of Munich, has been elected president of the German Academy of that city.

DR. HAROLD C. UREY, professor of chemistry, has been appointed Ernest Kempton Adams research fellow for the second consecutive year by the trustees of Columbia University. The appointment is made annually from among distinguished physicists of the United States or of any foreign country. "The Fellow so appointed shall prosecute researches in the physical sciences or in their practical applications either in Columbia University or elsewhere. The results of such investigation shall be published and distributed by the university." The stipend is \$1,250.

DR. JULIUS LIPS, formerly professor of sociology and ethnology at the University of Cologne, has been appointed visiting associate in anthropology for 1934-1935 at Columbia University.

THE executive board of trustees of the University of Pennsylvania has established a second professorship of medicine at the university and has elected Dr. O.

H. Perry Pepper to that post, marking the first time since the School of Medicine was founded 169 years ago that provision has been made for more than one professorship of medicine. In addition the term of Dr. Alfred Stengel, the present professor of medicine, was extended by the board for three more years, although Dr. Stengel has reached the age of retirement after serving on the faculty of the school for forty-one years. Dr. Pepper, who is a brother of Dr. William Pepper, dean of the School of Medicine, is the third member of his family to be elected professor of medicine at the university. His grandfather, who was Dr. William Pepper, held that position from 1860 to 1864, and his father, Dr. William Pepper, who died in 1898, was also professor of medicine for a number of years as well as provost of the university.

THE J. T. Baker Chemical Company research fellowship in analytical chemistry (Eastern Division) for 1934-1935 has been awarded to Edward J. Nolan, who will work on the quantitative determination of zirconium under the direction of Professor W. C. Schumb at the Massachusetts Institute of Technology.

At the forty-second annual meeting of the Anatomische Gesellschaft, which was held in Wurzburg from April 24 to 27, the following were elected presiding officers to serve until 1938: A. Benninghoff, Kiel; R. G. Harrison, Yale University; Th. Huzella, Budapest, and H. Stieve, Halle.

A WIRELESS dispatch to *The New York Times* states that Professor Julius Tandler, professor of anatomy at the University of Vienna, and city councillor, who was in China when the fighting broke out in Vienna, and who was arrested when he returned to Austria, has received an invitation from New York University to give a course of lectures. Professor Tandler was released from prison five weeks ago. He will later lecture at the National University in Shanghai, returning to the United States before sailing for Austria.

DR. JOYCE C. STEARNS, of the University of Denver; Dr. R. D. Bennett, of the Massachusetts Institute of Technology, and Dr. Darol K. Bowman, of Macdonald College, Canada, working in cooperation with Dr. A. H. Compton, of the University of Chicago, will again use Mount Evans as a laboratory this summer in a study of the nature and properties of cosmic rays.

PROFESSOR T. D. A. COCKERELL, of the University of Colorado, expects to work from June 15 to July 15 at the Citrus Experiment Station of the University of California.

DR. TETUO TOMIYAMA, assistant professor of biochemistry at the Imperial Fisheries Institute, Tokyo,

Japan, recently arrived in Berkeley to spend a year in research work with Professor C. L. A. Schmidt, chairman of the department of biochemistry at the University of California.

DR. EDMUND V. COWDRY, professor of cytology at the School of Medicine, Washington University, delivered the first annual Harry Hayward Charlton Memorial Lecture in anatomy at the University of Missouri Medical School on May 21. Dr. Cowdry spoke on "The Significance of Nuclear Changes in Virus Diseases."

DR. EDWIN GRANT CONKLIN, of Princeton University, on May 24 gave an illustrated lecture on "Recent Advances in the Study of Evolution" before the Ohio State University Chapter of the Sigma Xi Society.

DR. SELIG HECHT, of Columbia University, recently delivered a series of lectures on "The Retinal Mechanism for Vision" at the University of Minnesota. His lectures were sponsored by the department of zoology.

DR. G. W. STEWART, head of the department of physics at the State University of Iowa, delivered on May 23 an address on "The Mind's Trail in Scientific Discovery" at Morningside College, Sioux City, Iowa. Professor Stewart spoke under the auspices of the Morningside Chapter of Sigma Pi Sigma, honorary physics fraternity, into which he was initiated as an honorary member.

DR. C. E. MCCLUNG, of the University of Pennsylvania, visiting professor at Keio Medical College, Tokyo, was speaker at the annual meeting of the Sigma Xi Club of Peking on March 23. His lecture was entitled "Developments in Research in America." The following officers were elected for the ensuing year: *President*, Dr. C. W. Luh, of Yenching University; *Vice-president*, Dr. C. M. Van Allen, of Peiping Union Medical College, and *Secretary*, Dr. Adam P. T. Sah, of Tsinghua University. The Peiping club has fifty members. Guests present included Dr. A. Russel Moore, of the University of Oregon, and Dr. H. Irene Corey, of the University of Pennsylvania.

ACCORDING to *Nature*, the Abbé Henri Breuil, who recently was elected president of the Prehistoric Society of East Anglia for 1934, gave an address at the meeting of the society on May 23 on "Engraved and Sculptural Stone Monuments in the British Isles of the Transition Period between the Stone and Bronze Ages."

DR. ERIC PONDER, professor of general physiology at New York University, has been appointed investigator in general physiology at the Biological Laboratory of the Long Island Biological Association at Cold Spring Harbor, New York. The appointment will take effect in September. In the meanwhile Professor

Ponder will establish his laboratory and conduct research in the George Lane Nichols Memorial building. He will give instruction in the summer course in general physiology at the laboratory together with Professor Ivon R. Taylor, of Brown University; Professor Kenneth S. Cole and Dr. Harold A. Abramson, of the College of Physicians and Surgeons, and Dr. Hugo Fricke, of the Biological Laboratory. A correspondent writes that "Dr. Ponder's appointment to the staff is a further significant step in fulfillment of the laboratory's policy of engaging in all-year research and in fostering that type of biological research sometimes referred to as quantitative biology, the laboratory's interest in which was so clearly demonstrated in the establishment, in 1928, of a laboratory for biophysics under the leadership of Dr. Hugo Fricke, and in the opening last year of the Cold Spring Harbor Symposia in Quantitative Biology. Dr. Ponder's coming to Cold Spring Harbor will make more practicable certain cooperative researches which he and Dr. Fricke have been conducting for some time concerning haemolysis. At the same time both men will continue independent studies in their respective fields." Dr. Ponder will be assisted in his work at the laboratory by John MacLeod, who has worked with him for several years.

THE eighth International Congress of Industrial Psychology will be held next September in Prague. This congress, originally planned for Vienna, has had to be twice postponed on account of difficulties in the international political situation. American psychologists who expect to be in Europe next September should consult Dr. W. V. Bingham at 29 West Thirty-ninth Street, New York, regarding precise dates and arrangements for the congress.

It is planned to hold in Leningrad in 1936 a world conference of authorities on the stratosphere. It will be arranged to coincide with a total eclipse of the sun, which is the most advantageous time to study the upper layers of the atmosphere.

THE annual meetings of the American Society of Zoologists will be held at the University of Pittsburgh on Thursday, Friday and Saturday, December 27, 28 and 29. A symposium on mitosis will be held, probably on Thursday afternoon. This will be led by Dr. Franz Schrader, of Columbia University; Dr. Gerhard Fankhauser, of Princeton University; Dr. A. F. Huettner, of New York University, and Dr. C. W. Metz, of the Johns Hopkins University. The annual dinner will be held on Friday evening.

AN advisory committee composed of distinguished engineers and industrialists of the Eleventh National Power Exposition, to be held from December 3 to 8, at

Grand Central Palace, New York, has been announced. The chairman will be Irving E. Moulthrop. Other members are: Homer Addams, past president, American Society of Heating and Ventilating Engineers; N. A. Carle, manager, Puget Sound Bridge and Dredging Company; Paul Doty, president, The American Society of Mechanical Engineers; Fred Felderman, past-national president, National Association of Power Engineers; Charles V. Haynes, president, American So-

ciety of Heating and Ventilating Engineers; C. F. Hirshfeld, chief, research department, Detroit Edison Company; O. P. Hood, chief mechanical engineer, U. S. Bureau of Mines; John H. Lawrence, Thomas E. Murray Company; Fred R. Low, past president, The American Society of Mechanical Engineers; David Moffat Myers, consulting engineer, and Fred W. Payne and Charles F. Roth, co-managers, of the exposition.

## DISCUSSION

### THE USE OF PERMANENT PAPER IN SCHOLARLY PUBLISHING

ONE of the major problems which confront librarians and the publishers of scholarly works is that of the deterioration of the paper upon which the publications are printed.

At the University of California Press we believe we have solved this problem by printing a special edition of 25 copies of our scientific works on a permanent, 100 per cent. rag paper, and distributing these copies to a selected list of depositories throughout the world.

Much of the material published by this press is in serial form. It is extremely technical and, we think, important within its field. Some 30 series are more or less regularly issued, relating to many fields of human knowledge from agricultural sciences and anatomy to Semitic philology and zoology. How much of this material possesses lasting value no one can say, but certainly some part of it will be of signal importance to future scholars.

Publishers have a duty to posterity; particularly those who, like ourselves, are engaged in preserving the results of original research. Consciousness of this ought to compel us to print our publications on material that will last. But much intervenes between duty and practise, and, as a result, important discoveries are being published so shoddily that within the century their record will be lost.

Late in 1933 the University of California Press, recognizing its obligation to future scholars, initiated the new method of publishing which has been described. Long study and careful preparation were necessary before the project could be successful. Paper technicians, chemists and other experts were consulted in an endeavor to prepare specifications for a paper which would be as permanent as possible without being excessive in cost. After much work on this problem, we found that in all probability our wisest course would be to adopt the specifications used by the United States Government Printing Office in the purchase of paper for the Federal Government's permanent printed records. These specifications are a matter of public record, and the paper mills are

familiar with them; therefore no difficulty was encountered in having a shipment made up for our use. The comparatively heavy cost of this paper made its use impossible for entire editions, but its use in twenty-five copies made little difference. The bulk of the edition is printed on a paper of good quality but much less costly.

Once the technical problem of production had been solved, it was necessary to select a group of depositories for receiving the special copies. Consultation with scholars and librarians resulted in the compilation of a list of institutions throughout the world. In making the list, consideration was given to geographical distribution, to the scholarly nature of the libraries and to their willingness to bind and house the material which they would receive. Nothing was asked in return except their custodianship. If exchanges were forthcoming, so much the better, but they were not requested. (Should any reader wish a list of these libraries, it will be gladly furnished on application to the author of this note.)

Letters were sent by the Division of Serials and Exchanges of the University of California Library to the designated depositories, and without exception this plan received commendation. The librarian of one of the largest libraries in the eastern part of the United States wrote as follows:

Your decision to print your serial publications on rag paper will, I hope, be imitated by other institutions publishing important serials and books. I know I need not tell you that those which have been printed on wood-pulp paper will have disappeared or become unusable within the next fifty years. So we applaud your decision and thank you most heartily for including us among the institutions to receive these rag paper editions.

This brief note of a project which should be of interest to all scholars and librarians must necessarily omit many details which might be of interest. But room is lacking for a detailed explanation.

It is unfortunate that we are not endowed with a Methuselah's term of life so that we may know whether our judgment is sound, but we are building