

in the region, the relatively deep areas of the sea, such as Exuma Sound, the Tongue of the Ocean and Providence Channel, suggest the possibility of being drowned river valleys. It will probably be two or three months before the gravity stations and isostatic deductions have all been computed, and it is hoped that the geological significance of the expedition can be reported at that time.

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THE PULLMAN MEETING OF THE PACIFIC DIVISION OF THE AMERICAN ASSOCIATION

A PRELIMINARY announcement of the Pullman meeting has just been distributed to members of the American Association for the Advancement of Science resident in British Columbia, California, Hawaii, Idaho, Montana, Nevada, Oregon, Utah and Washington.

Two of the principal addresses to be presented during the meeting will be given by Professor A. O. Leuschner, president of the Pacific Division, and Professor J. Harlen Bretz, of the University of Chicago. The subject of Professor Leuschner's address will be "The Astronomical Romance of Pluto." The events that led to the discovery of Pluto, the investigations on its orbit and mass and the question of its nature as a celestial object will be discussed. Professor Bretz's address, which will be on "The Scablands of the Columbia Plateau in Washington," is of special interest in view of a general symposium to be held on "Scientific Problems of the Columbia Plateau."

Under this heading, four topics will be introduced for discussion in the session of Thursday morning, June 16:

Interesting Botanical Areas, Dr. F. L. Pickett, professor of botany, the State College of Washington.

Geological Problems, Mr. M. G. Hoffman, assistant professor of petrology, the State College of Washington.

Economic and Agricultural Problems of the Wheat and Apple Industries, Dr. E. F. Dummer, professor of economics, the State College of Washington.

Engineering Problems, Dean Ivan C. Crawford, dean of the College of Engineering, the University of Idaho.

In accordance with the custom of recent years, the opening session on Wednesday, June 15, will be devoted to research reviews. The purpose of these is to survey the progress of scientific research on the Pacific Coast and in the Far West, the subjects under investigation being reviewed in the light of their relation to problems of major interest in the sciences at large. Attention will be centered upon a few of the most noteworthy accomplishments in each field. The reviews will be presented as follows:

Astronomy and Astrophysics: Dr. J. S. Plaskett, Dominion Observatory, Victoria, B. C.

Chemistry: Dr. J. B. Ramsey, University of California at Los Angeles.

Physics: Dr. W. V. Houston, California Institute of Technology.

Animal Sciences: Dr. J. E. Guberlet, University of Washington.

Plant Sciences: Professor G. J. Peirce, Stanford University.

The greater part of Thursday and Friday will be given over to the programs of the participating societies. Members proposing to present papers are reminded that titles received later than May 2 can not be published in the association program.

A visit to the University of Idaho, and excursions to Kamiak Butte, Almota Canyon, Moscow Mountain, Bald Butte, Snake River Canyon, Wallowa Mountains and the Scablands are under arrangement. Areas of considerable interest to the biologist and geologist will be visited.

SCIENTIFIC NOTES AND NEWS

THE honorary doctorate of laws was conferred on March 23 by the University of California on Dr. William Wallace Campbell, formerly director of Lick Observatory and from 1923 to 1930 president of the university.

DR. GRAHAM LUSK, professor of physiology in the Cornell Medical College, was recently elected a corresponding member of the Prussian Academy of Sciences.

DR. CHARLES B. DAVENPORT, director of the Station for Experimental Evolution of the Carnegie Institution of Washington, has been elected a member of the German Academy of Sciences at Halle.

THE Priestley Medal of the American Chemical Society has been awarded to Dr. Charles L. Parsons, since 1907 secretary of the society.

THE prize of \$1,000 of the American Chemical Society, founded in 1931 by Dr. A. C. Langmuir, has been awarded to Dr. Oscar K. Rice, instructor in chemistry at Harvard University. The prize is awarded to the most promising chemist in North America, less than thirty years old, in recognition of outstanding research in pure chemistry. Dr. Linus Pauling, of the California Institute of Technology, received the award last year.

At the annual meeting of the Physical Society,

London, on March 18, the Duddell Medal was presented to Professor C. T. R. Wilson, F.R.S.

DR. EDWIN STEPHEN GOODRICH, Linacre professor of zoology and comparative anatomy, University of Oxford, has been selected by the council of the Linnean Society of London as the recipient of the Linnean Medal, which will be presented to him at the anniversary meeting on May 24.

THE Meldola Medal, the gift of the Society of Macabaeans, was presented on March 1 to Dr. G. F. Marrian, of University College, London, in recognition of his researches on vitamins and hormones, at the fifty-fourth annual general meeting of the British Institute of Chemistry.

In recognition of his services to Queen's University, Belfast, where he had been professor of surgery for thirty-seven years, Dr. Thomas Sinclair was recently presented with a portrait of himself by Mr. George Harecourt. Viscount Bangor, who presided, referred to Professor Sinclair's career in the army, the Imperial Parliament and the Senate of Northern Ireland. Sir Thomas Houston spoke particularly of the debt that the Belfast school and his former pupils owed to Dr. Sinclair.

A PORTRAIT of Dr. J. Parsons Schaeffer, professor of anatomy at the Jefferson Medical College and director of the Daniel Baugh Institute of Anatomy, was presented to the college on March 15 by the graduating class. The portrait was painted by Lazar Raditz, of Philadelphia.

For outstanding contributions to progress in the medical science, Dr. Elliott Proctor Joslin, of the Harvard Medical School, and Dr. Aleš Hrdlička, of the Smithsonian Institution, have been awarded the 1932 honors of the Kober Foundation, Georgetown University. Dr. Joslin, authority on diabetes mellitus, will receive the foundation's medal at the meeting in Atlantic City of the Association of American Physicians on May 3. Dr. Hrdlička, curator of physical anthropology at the Smithsonian Institution, has been designated foundation lecturer for this year.

DR. GEORGE R. LA RUE, professor of zoology at the University of Michigan and director of the Biological Camp at Douglas Lake, was elected president of the Michigan Academy of Science, Arts and Letters at the conclusion of the annual meeting at Ann Arbor. Mr. Robert B. Newcomb, of the State Department of Conservation, was elected vice-president.

SIR WILLIAM J. POPE, professor of chemistry in the University of Cambridge, has been elected chairman of the Council of the City and Guilds of London Institute in succession to the late Dr. Morton Latham.

LORD MOYNIHAN of Leeds has been elected a member of the committee of the Radium Institute, London, in the place of Sir Hugh M. Rigby, who has resigned on his retirement from practice and removal from London.

THE committee on scientific research of the American Medical Association has made a grant to Professor Arthur H. Smith, of the laboratory of physiological chemistry, Yale University, for the continuation of his studies on the blood of animals subjected to restriction of inorganic salts in the diet.

DR. MAX W. GARDNER, chief in botany in the Indiana Experiment Station, has been appointed professor of plant pathology and plant pathologist at the University of California and the California Experiment Station.

DR. HERBERT E. ROAF, professor of physiology in the London Hospital Medical College, has accepted an offer of appointment to the George Holt chair of physiology at the University of Liverpool, in place of Professor J. S. Macdonald, who will retire at the end of the present session.

At a general meeting of the governing body of Magdalen College, Oxford, Mr. Eric Balliol Moullin, university reader in engineering science, was elected to a fellowship.

DR. OSKAR SEIFRIED has sailed for Germany, having accepted the professorship of general pathology and pathological anatomy in the veterinary faculty of the University of Munich, succeeding Professor T. Kitt. Dr. Seifried was associate and later associate member in the department of animal and plant pathology of the Rockefeller Institute for Medical Research at Princeton, N. J.

THE REVEREND EMMANUEL M. SANCHEZ-NAVARRO NEUMANN, S.J., who has been in charge of the observatory at Cartuja, near Granada, Spain, and who is known for his researches in the field of seismology, was expelled from his observatory by the new Spanish government on February 2. He is now an exile in Naples, Italy. He was obliged to leave behind the accumulation of twenty-five years of labor with his instruments and books.

DR. W. A. SHEWHART, of the Bell Telephone Laboratories, will sail on April 9 for a two months' trip to Europe. His first engagement will be the delivery of three lectures at the University of London on the rôle of statistical method in industrial standardization. A number of conferences in theoretical and applied statistics with Dr. Shewhart have been arranged both in Great Britain and on the continent.

PROFESSOR HERBERT OSBORN, of the Ohio State Uni-

versity, has returned to Columbus from a winter vacation in Florida and will resume his work for the spring quarter. At the scientific meetings at New Orleans he was the guest of honor at the annual Entomologists dinner. Dr. Osborn addressed the Southern Beekeepers Conference at St. Petersburg, Florida, on February 3 and the zoology students at Rollins College on March 11.

DR. ARTHUR J. TIEJE, chairman of the department of geology at the University of Southern California, will again give the courses in geology at the summer session of Columbia University. He will drive to New York, with the aim of adding to his collection of rock suites representing the historical geology of the states. Later he will spend a month abroad, collecting European rocks.

MR. GERRIT S. MILLER, JR., curator of the division of mammals of the U. S. National Museum, is spending two months in Porto Rico, exploring caves for remains of extinct animal bones.

A SEVEN-WEEKS course of daily lectures and discussions on the principles and methods of hydrology as pertaining to the ground waters was given at the U. S. Geological Survey from February 1 to March 19. The discussions were led by Dr. O. E. Meinzer, Mr. W. D. Collins, Mr. D. G. Thompson, Mr. W. N. White, Mr. A. G. Fiedler and other members of the staff.

DR. ARTHUR H. COMPTON, of the University of Chicago, gave four addresses at the University of Oklahoma, on March 19 and 20. He spoke before the department of physics on "Cosmic Rays and Atomic Nuclei" and "New Experiments on the Structure of the Atom," and before a general university convocation on "Are Man's Actions Determined by Physical Laws?" He was also the principal speaker at the annual banquet of the college of engineering, and was the guest of honor at a department of physics luncheon.

LECTURES will be given in the Mallinckrodt Laboratory, Harvard University, as follows: April 11, at 8 p. m., Dr. N. V. Sidgwick, fellow of Lincoln College, Oxford, on "The Structure of Simple Molecules"; April 14, at 4:30 p. m., Professor Peter Debye, of the University of Leipzig, on "The Interionic Attraction Theory of Electrolytes."

DR. B. A. KEEN, assistant director of the Rothamsted Experimental Station, delivered the G. J. Symons memorial lecture before the Royal Meteorological Society, on March 16. The subject of Dr. Keen's lecture was "Soil Physics in Relation to Meteorology."

A LECTURE under the auspices of the Smithsonian Institution was given at the U. S. National Museum on March 30 on "Plant Records of the Rocks" by Dr.

Albert Charles Seward, master of Downing College and professor of botany at the University of Cambridge. During his stay in the United States Professor Seward expects to lecture in Boston, Washington, Chicago, San Francisco and Seattle.

SIR FRANK DYSON, Astronomer Royal of Great Britain, will be a member of an expedition that will visit the United States and Canada to observe the total solar eclipse on August 31. Sir Frank will preside at the meeting of the International Astronomical Union which meets at the Harvard College Observatory. Other members of the party will be Dr. Harold Knox-Shaw, president of the Royal Astronomical Society; Sir A. S. Eddington, Plumian professor of astronomy at the University of Cambridge, Lord Raleigh, and Dr. L. J. Comrie, of the Royal Naval College, Greenwich, superintendent of the British Nautical Almanac office.

THE fourteenth annual meeting of the American Society of Mammalogists will be held in Washington from May 3 to 7, the sessions for the presentation of papers, discussion and business to convene at the National Museum. The local committee on arrangements consists of Dr. W. M. Mann, director of the National Zoological Park; Dr. Remington Kellogg, assistant curator of the division of mammals; Ernest P. Walker, assistant director of the National Zoological Park, and Mr. Walter C. Henderson and Dr. H. H. T. Jackson, of the Bureau of Biological Survey. According to the plans of this committee, a combined reception, smoker and movies will be held on Wednesday evening, May 4, and the annual dinner on Thursday evening, May 5. On Saturday there will be a luncheon at the National Zoological Park, with a tour of the park in the afternoon.

THE Association of American Medical Colleges announces the completion of the third annual study of the accomplishment of students during their first year in medical school. This study includes the class of 1930, numbering 6,315 students, who came from 584 colleges of liberal arts. The record shows how many students made a clear record, how many had an encumbered record and how many failed completely. The name of the student and the medical college attended completes the record. The subjects in which conditions or failures, or both, were made are also carded. Colleges of liberal arts who sent students into medicine in the fall of 1930 may obtain a complete record of the accomplishment of these students by writing to the secretary of the association, Dr. Fred C. Zapffe, 25 East Washington Street, Chicago.

Museum News reports that McGill University, Montreal, will give its summer course in medical museum technique this year from June 13 to 25.

Only eight students will be admitted, and registration for the course will close on April 30. Lectures and demonstrations will be held in the recently built Pathological Institute of the university and students will have an opportunity to examine an extensive and representative collection of museum specimens, including pathological, osteological, anatomical and zoological material. The two weeks course will be devoted to laboratory layout, equipment, lighting, etc., glass frame technique, color preservation, museum jars, mounting of specimens, corrosion and injection, cleaning of bones, osteological preparation, cross sections, clock glass and petri dish mounting, dry mounting, gelatine, cement, records, storage and case exhibits. Students will be given an opportunity of spending an extra week in the laboratory. Inquiries should be addressed to Mr. E. L. Judah, curator of Museums, McGill University, 3755 University Street, Montreal.

AMONG the exhibits displayed on March 9 at a scientific reunion held in the board room of the British Museum of Natural History at South Kensington were, according to the London *Times*, a number of fossil fauna recovered from the site at Oldoway in Tanganyika by Mr. A. T. Hopwood, of the museum staff. The significance of the Oldoway discoveries was discussed by Mr. L. S. B. Leakey, in an article in the issue of the *Times* for March 9, and the exhibits shown at South Kensington included remains of a

number of Pleistocene mammals, among them several teeth of the *Dinotherium*, an aberrant sideline from the family of the elephant. Hitherto this animal has been associated with the Miocene period, but it was found in the Oldoway beds with remains of the elephant itself. A fossilized elephant tooth from this deposit was exhibited yesterday for comparison, together with the mandible and palate of the *Elephas antiquus recki* found in the lowest bed, and associated by European analogies with the Middle Pleistocene period. From this lowest bed and that immediately above it there were exhibited two antelope skulls of a new type and a kudu skull complete with horns. The zoological exhibits included species of the *Siphonophora*, a very primitive type of animal in which evolution has not yet reached the stage of producing a body cavity; the specimens displayed included tropical, Arctic and Antarctic variations of its sac-like constitution. A new genus of scorpion collected by Mr. Bertram Thomas in Arabia attracted much attention, not merely by its unprecedentedly flattened tail, but through the occasional existence of a tibial spine such as was found in its relatives of the Silurian period and the oldest surviving genus of scorpions to-day, but not in the more recent genera. The department of botany showed specimens of the "Fungus Stone" or "Rock Mushroom," a hard mass of fungal mycelium and earth which, when watered, produces an edible fungus, causing much astonishment to naturalists from the time of Strabo to that of Pepys.

DISCUSSION

BIOLOGICAL ABSTRACTS AND THE COLLEGE

THE question of the advisability of continuing and improving *Biological Abstracts* again arises, now that we have five years' actual experience with the usefulness of the journal. To be sure it is regrettable that the *Abstracts* are not as up to date as might be wished, nor as yet completely indexed, but the undertaking is well launched, and we have the word of the editor, who said at the New Orleans meetings that it needs only a somewhat greater support to improve in those ways where they are now found wanting. In a recent issue of *SCIENCE*, Dr. Lillie pointed out the unique character of the publication, the fact that in its comprehensiveness (and withal, compactness) there is an immense saving in dollars to biologists, who, to get a similar service otherwise, would have to subscribe to many abstract journals, each only partially covering the field. There seems to be no question of the value of the *Abstracts* to biological research, nor of the value to society, in turn, of that research.

It must be remembered that the *Abstracts* play a part of varying significance in the work of biologists in different types of institutions, and it is the use made of the publication by those of us connected with small colleges which I wish to emphasize. The library appropriations in the colleges are uniformly smaller than those of the universities; any large number of the important journals in the field of biology is therefore quite out of the question for college budgets. Thus every aid in giving to the colleges as wide a survey as possible of what is being done in research is to be commended. *Biological Abstracts* gives such a survey in brief and gives likewise access to the material that can then be temporarily borrowed from the larger loan libraries which so generously provide service of this type. Students in my own college, for example, use *Biological Abstracts* extensively in the preparation of seminar reports and in small research problems. Further, all teachers in small institutions will agree that the *Abstracts* are invaluable aids to teaching, in keeping abreast of the times in fields in