

The establishment of four fellowships to do this work in 1922 and 1923 is an endorsement of similar investigations conducted this past year at these institutions. Four fellowships were established a year ago by the advisory board of coal operators of the cooperative department of mining engineering at the institute. They also chose the problems for the research work. The Pittsburgh district is the first to take this progressive step in solving the problems of coal mining. When the results of the research work are broadcasted, the whole industry should be benefited.

The investigations of the four research fellows conducted the past year are completed and reports will soon be available to the coal industry. For the coming year, appointments have already been made by the cooperative department of coal mining to begin the work in September. The problems selected by the advisory board of operators have been assigned to the fellows in accordance with their specific training and adaptability. In making the appointments, applications were considered from all parts of the United States, reflecting the wide interest at large in research work of coal mining problems.

The four problems to be investigated, as recommended by the advisory board, are: (1) De-sulphurization of coke. (2) Corrosion problem with regard to acid mine waters. (3) Microscopic study of the Pittsburgh coal seam. (4) By-product study of the roof coal of the Pittsburgh coal seam.

The appointments and assignments for 1922-3 are:

Teaching Fellows: John H. Thompson, B.S. metallurgy, 1922, University of Washington, under Dr. Alfred R. Powell, physical chemist, of the United States Bureau of Mines, and V. F. Parry, B.S. mechanical engineering, 1922, University of Utah, under Joseph D. Davis, fuels chemist, U. S. Bureau of Mines.

Research Fellows: J. Richard Adams, B. S. physical chemistry, 1922, Cornell University, under R. J. Anderson, metallurgist, U. S. Bureau of Mines, and James U. Staud, B. S. geology, 1922, Pennsylvania State College, under Dr. Reinhardt Thiessen, research microscopist, U. S. Bureau of Mines.

THE OPTICAL SOCIETY OF AMERICA

THE seventh annual meeting of the Optical Society of America will be held at the National Bureau of Standards, Washington, Thursday, Friday and Saturday, October 26-28, 1922. The regular sessions for the reading of papers will be open to all interested persons.

Members and others desiring to communicate results of optical research are invited to submit titles of papers for the program to the secretary any time before September 25. Titles received after that date can not be included in the program. Address Irwin G. Priest, secretary, Optical Society of America, care of Bureau of Standards, Washington, D. C. Each title must be accompanied by an abstract of not more than 300 words. These abstracts will be printed in the program and in the minutes of the meeting. The purpose of the abstract is to give: (1) a more definite description of the *nature* and *scope* of the paper than can be conveyed in the title, (2) the essential results in so far as may be possible in the limited space allowed. It is hoped that the advance publication of these abstracts will prepare those attending the meeting to consider the papers more intelligently and with much greater interest. Authors are urged to cooperate in this effort by preparing their abstracts carefully with this end in view. They are also asked to submit with each abstract a careful estimate of the time which will be necessary and sufficient to present the paper briefly but adequately. In preparing the program the secretary will be guided by these estimates insofar as time will permit.

No title will be printed to be presented "by title." Titles should not be submitted unless the author has a bona fide intention to actually present the paper orally or have it presented by some one else.

One session will be devoted to vision and physiologic optics.

An exhibit of optical instruments and apparatus will be held at the Bureau of Standards in connection with this meeting. Communications relative to this exhibit should be addressed to Professor C. A. Skinner, chairman, exhibit committee, Optical Society of America, Bureau of Standards, Washington, D. C.

The program will be mailed to members about October 1. Others desiring programs in advance may obtain them by applying to the secretary.

IRWIN G. PRIEST,
Secretary

ADDITIONS TO THE SCIENTIFIC STAFF OF THE FIELD MUSEUM OF NATURAL HISTORY

THE following additions have been made to the staff of the Department of Field Museum of Natural History:

Mr. Ralph Linton has been attached to the staff of the Department of Anthropology with the rank of assistant curator of North American Ethnology. Mr. Linton received his M.A. degree from the University of Pennsylvania and continued his anthropological studies at Columbia and Harvard Universities. He has carried on extensive investigations, principally archeological, in the eastern, central and south-eastern United States, several reports of which have been published, as well as in Central America and Polynesia. Only recently he returned from an expedition to the Marquesas Islands for ethnological and archeological researches, undertaken under the auspices of the Bishop Museum of Honolulu, Hawaii, the results of which will be published shortly by that museum.

A new division of taxonomy has been created in the Department of Botany and Mr. J. Francis Macbride, now in Peru at the head of a botanical expedition for Field Museum, has been designated as assistant curator of taxonomy. Mr. Macbride is a graduate of the University of Wyoming of the class of 1914. Since graduation he has been connected with the Grey Herbarium of Harvard University.

In the Department of Zoology Dr. C. E. Hellmayr, known for his extensive work on neotropical birds, has been appointed associate curator of birds. Dr. Hellmayr was formerly connected with the Rothschild Museum at Tring, England, and more recently has been with the Museum of the University of Munich. He will arrive in this country early in September. Mr. Edmund Heller, former associate of Theodore Roosevelt, and Mr. John T. Zimmer have re-

cently been appointed assistant curator of mammals and assistant curator of birds, respectively, and are now engaged in field work in central Peru, where they will remain until 1923. Mr. Karl P. Schmidt, formerly with the American Museum of Natural History, New York, has been appointed to the zoological staff as assistant curator of reptiles and batrachians.

HONORARY DEGREES AT THE UNIVERSITY OF PENNSYLVANIA

AMONG five honorary degrees awarded by the University of Pennsylvania at its recent commencement two were doctorates of science. In conferring the degree on Professor William Duane Dr. Penniman, the acting provost, said:

Graduate of Pennsylvania with the degree of bachelor of arts in 1892; afterward a student at Harvard and at Berlin; research worker in the Radium Institute of the University of Paris; professor of physics at Colorado, and since 1913 at Harvard; member of the National Academy of Sciences; John Scott medallist for scientific research; author of numerous important scientific papers, particularly on radium and related topics.

In conferring the degree of Professor George A. Piersol Dr. Penniman said:

Beloved by your colleagues and by your students. You have recently laid aside the active duties of the professorship of anatomy in our School of Medicine, from which in 1877 you were graduated, and in which for many years you have been one of the outstanding members of a distinguished medical faculty. Learned in your own field of research, lucid and eloquent as a teacher; the author of many papers and volumes on anatomy, histology and kindred subjects containing contributions to knowledge.

SCIENTIFIC NOTES AND NEWS

At the annual meeting of the Pacific Division of the American Association for the Advancement of Science held in conjunction with the summer session of the American Association for the Advancement of Science, from June 22 to 24, the University of Utah conferred the honorary degree of doctor of laws on Dr. Barton Warren Evermann, president of the Pacific Division, and director of the Museum of the California Academy of Sciences and the new Steinhart Aquarium, now being construct-