The basic stipends awarded are \$1,800 for unmarried fellows and \$2,300 for married fellows per annum. These stipends may be increased when there are other dependents or for other cogent reasons.

The fellowships are not granted to any institution or university, but the choice of place to work is left to the fellow, subject to the approval of the Fellowship Board. The appointments are for full time and no other remunerative or routine work is permitted, except that during the college year the fellows may, by written permission of the board, give a portion of their time, in general not more than one fifth (outside preparation included), to teaching of educational value to themselves, or to attendance on advanced courses of study.

The particular individual with whom a fellow wishes to work should, ordinarily, have agreed to accept him, prior to the consideration of his application by the board. It is further required that the fellow be charged no fees or tuition by the institution where he chooses to work.

When the board will next meet has not yet been decided. A meeting in the spring of the year is assured and if the number of applications received justify it, other meetings will be held in the interim accordingly. Applications may be received at any time and will be placed on file for the meeting which follows their receipt. Requests for information and application forms should be addressed to the Secretary, Board of National Research Fellowships in the Biological Sciences, 1701 Massachusetts Avenue, Washington, D. C.

F. R. LILLIE

CHAIRMAN OF THE COMMITTEE ON BIOLOGY AND AGRICULTURE OF THE NATIONAL RESEARCH COUNCIL

## SCIENTIFIC APPOINTMENTS IN THE BUREAU OF MINES

WITH the advancement of Dr. S. C. Lind, formerly superintendent of the Rare and Precious Metals Experiment Station, at Reno, Nevada, to the post of Chief Chemist and Chief of the Division of Mineral Technology to succeed Dr. R. B. Moore, other changes in the research branch of the Bureau of Mines throughout the country were made. E. S. Leaver, formerly superintendent of the Southwest Experiment Station, Tucson, Arizona, was selected to succeed Dr. Lind as superintendent of the station at Reno. Mr. Leaver was designated as Dr. Lind's successor because of having given his attention for a great many years to problems connected with the metallurgical treatment of the western ores, especially those associated with the cyanide process. S. P. Howell, formerly of the Pittsburgh Station, who has spent the past year in Arizona studying the mining problems of that State, especially regarding the use of explosives, has been designated as superinvendent of the station at Tucson.

During the past year G. St. J. Perrott and S. P. Kinney have conducted an intensive study of the combustibility of coke in blast furnaces. This work will hereafter be conducted by Mr. Kinney in connection with the operation of the experimental blast furnace at the North Central Experiment Station, Minneapolis, and at commercial furnaces in South Chicago, Illinois, and Youngstown, Ohio. Mr. Perrott has been transferred to the Pittsburgh Experiment Station to direct chemical-physical work in connection with the liquid oxygen explosives investigations.

Dr. T. T. Read, formerly chief of the division of information service in the Washington Office, has been transferred to Duluth, Minn., and made superintendent of the North Central Experiment Station. The headquarters of Dr. Read were fixed at Duluth to permit of maintaining a closer contact with the mining phase of the work.

T. L. Joseph has been made assistant superintendent of the North Central Experiment Station at Minneapolis.

Oscar Lee has been transferred from Minneapolis to the Southern Experiment Station, Tuscaloosa, Alabama, and placed in charge of the iron ore beneficiation work under the direction of Dr. W. R. Crane, superintendent of the station.

Dr. W. D. Bonner, who has been employed as a physical chemist at the Pacific Experiment Station, Berkeley, California, has resigned and will return to the University of Utah as an instructor. C. G. Maier, formerly with the department of metallurgical research of the University of Utah, has been appointed to the position at Berkeley made vacant by Dr. Bonner's resignation.

Professor Ernest A. Hersam, of the University of California, who for the past year has studied metallurgical milling problems at the Massachusetts Institute of Technology in cooperation with that institute and with the American Institute of Mining and Metallurgical Engineers, has returned to his former position as an instructor at the University of California.

John Gross, of the station at Reno, Nevada, will go to Cambridge to continue the work which Professor Hersam has been doing.

John Blizard, who has had charge of the Bureau's fuel work at its Pittsburgh Station, has resigned to accept a position with a commercial concern in New York City, where he will be engaged on the design of super-heaters and heat transfer apparatus.