

THE United States Civil Service Commission announces open competitive examinations for the positions of principal engineering draftsman, \$2,300 a year; senior engineering draftsman, \$2,000 a year; engineering draftsman, \$1,800 a year; assistant engineering draftsman, \$1,620 a year. Optional branches include architectural, civil, electrical, mechanical and structural engineering.

THE Rockefeller Foundation has appropriated for work at the University of Michigan for study of the application of spectroscopic methods to medical problems, under the general direction of Professor L. H. Newburgh and Professor H. M. Randall, the sum

of \$14,000 and funds not to exceed \$5,000 annually for a five-year period to end June 30, 1940, for special research in the physiology of respiration, under the direction of Dr. Robert Gesell.

GEORGE H. DERN, Secretary of War, has announced approval by the National Forest Reservation Commission of 949,804 acres of land for purchase for the national forests at a cost of \$3,493,328. The approved purchases include 407,462 acres in the southern forest service administrative region, 217,373 in the north-eastern region, 324,679 acres in the Lake and Upper Mississippi states and 200 acres in California.

DISCUSSION

GRANTS IN SUPPORT OF RESEARCH ON THE BIOLOGICAL EFFECTS OF RADIATION

IN previous statements in this journal,¹ indications have been furnished regarding grants in support of research on the effects of radiation on organisms. During the period of somewhat more than five years, the Radiation Committee of the National Research Council has been able to make these grants as a result of contributions made by the General Education Board, the Commonwealth Fund and certain manufacturers of radiation equipment and scientific apparatus and materials. Through a contribution made recently by the Rockefeller Foundation to the National Research Council, the Radiation Committee announces a continuation of a limited program in support of research on the biological effects of radiant energy. The new program becomes effective after July 1, 1935, and it is hoped that in this new program the projects supported may be those directed primarily toward obtaining a broader basis of quantitative data in this field, that is, studies along such lines as the fundamental physiological and developmental responses of cells and tissues, metabolism in the broadest sense, significant biological products, relevant absorption and emission spectroscopy. Grants will be made annually. In making these grants, stress will be placed upon the fundamental scientific promise of the project and the facilities and cooperation available for the work. Funds totaling \$75,000 are available for this purpose during a three-year period. This includes a special allotment for mitogenetic radiation research during 1935-36, and it also provides for the continuation of a few projects begun during the previous five-year period. The possibility also exists, through the cooperation of interested industrial corporations,

for the loan of certain types of apparatus. Applications for grants should include an adequate statement of the status of the problem or project, the extent of the support received or promised by the university or institution with which the applicant is associated, and the character of the apparatus available or obtainable for the work.

The conditions under which grants of money or apparatus may be made are essentially the same as those made by the Committee on Grants-in-Aid of the National Research Council, and are in general, as follows:

1. Grants will cover such expenses as apparatus, materials and supplies, technical assistance, and, to a limited extent, field expenses.
2. Ordinarily, grants will not be made for any part of the personal salary of the grantee, for expenses of publication, for the purchase of books or for travel in attendance upon scientific meetings.
3. In general, preference will be given to the support of investigations, (a) requiring a moderate allotment, (b) from which definite results may be expected with the aid of the grant, (c) which are supported in part by the institution with which the applicant is associated, and (d) for which it is reasonably certain that the facilities are available or procurable, or in which cooperation is arranged between the biological and physical interests.

It is expected that allotments for 1935-36 will be made in late August. Those planning to apply for grants should request application forms from the Division of Biology and Agriculture, National Research Council, 2101 Constitution Ave., Washington, D. C. The applications, together with any supporting documents, should be sent promptly, preferably by August 10, to the Division of Biology and Agriculture.

B. M. DUGGAR,

Chairman, Committee on Radiation.

¹ W. C. Curtis, *SCIENCE*, 73: 643-645, June 12, 1931; *SCIENCE*, 69: 9-10, January 4, 1929.