

500,000 acres, of which about 200,000 is now owned by the United States and the remainder is either in private ownership or is owned by the State of Michigan. The National Forest Reservation Commission has authorized the acquisition by the Department of Agriculture of the privately owned lands and it is expected, therefore, that these will ultimately be purchased.

THE International Education Board of the Rockefeller Foundation has given \$200,000 to the Paris National History Museum to house the botanical collections in a new building. The total cost will be \$280,000. The French government will contribute the balance.

### UNIVERSITY AND EDUCATIONAL NOTES

ROBERT LAW, JR., has raised the amount he contributed to the development fund of the University of Chicago to \$200,000. This sum will be used as an endowment for a distinguished service professorship.

DR. EDWARD H. ROCKWELL, dean of the college of engineering of Rutgers University, has been appointed professor of civil engineering at Lafayette College.

GEORGE W. SWENSON, assistant professor of electrical engineering at the University of Minnesota, has resigned to become professor of electrical engineering at the Michigan College of Mines at Houghton, Mich. He will be head of this department, which has just been established.

DR. GEORGE L. ZUNDEL, of Yale University, has been appointed assistant professor of plant pathology extension at the Pennsylvania State College.

DR. JOHN L. ULRICH, of the Plant Research Laboratory of Lehn and Fink, Bloomfield, New Jersey, has been appointed head of the department of physiology at the Homeopathic Medical School, New York City.

In the department of zoology of the University of Pittsburgh, the following changes in rank are in effect for the coming year: Robert T. Hance, from acting head to head of the department; P. W. Whiting, from assistant to associate professor; E. Alfred Wolf, from instructor to assistant professor; A. W. Kozelka, from instructor to assistant professor at the Erie Center; E. P. Jones, from graduate assistant to instructor at the Uniontown Center.

THE China Medical Board of the Rockefeller Foundation has appointed Dr. Max M. Zinninger professor of surgery at the Peking Union Medical College. Dr. Zinninger has been with the Cincinnati College of Medicine and the Cincinnati General Hospital for about six years.

THE retirement of Professor Diarmid Noël Paton from the chair of physiology in the University of Glasgow will take effect on September 30. The Secretary of State for Scotland has recommended the appointment of Edward Provan Cathcart to the vacancy. Professor Cathcart at present holds the chair of physiological chemistry in the University of Glasgow, to which he was appointed in 1919.

### DISCUSSION AND CORRESPONDENCE

#### "CENTERS OF RESEARCH," A REPLY

IN a recent article in *SCIENCE* entitled "Centers of Research,"<sup>1</sup> Professor S. R. Williams discusses what he believes to be the paucity and mediocrity of research in some of our graduate schools and suggests a remedy. While we agree that in some schools the situation is unsatisfactory we are inclined to differ as to some of the causes and the remedies. Professor Williams ascribes this condition to the practice of dividing research students among several members of the departmental staff, and suggests that the remedy is to place the department of research under *one outstanding leader who alone will direct and supervise the research of all candidates for the Ph.D. degree in that subject*, in analogy to the condition in German universities.

In contradistinction to conditions existing abroad where the funds for the support of more than one full professorship in a single subject are rarely available, our recent demand for wholesale education has created a very different situation. In the first place, many of our larger institutions are adequately supporting not one professorship in a department, but several. The demand for men to occupy the positions in competition with the excellent industrial opportunities for able men has filled many of these places with men of an average poorer quality than in analogous positions in Europe. In addition to this, the administrations of universities are demanding productive research from these men and their students. The result is, as Professor Williams states, rather lamentable in some cases. It seems to us, however, that the situation has been painted a bit blacker than it really is, and certainly than it will be in the future.

American standards for the Ph.D. are being perceptibly raised. Agencies such as the National Research Fellowships and the Bartol Research Foundation are training the abler Ph.D.'s in research for periods of several years after they have obtained their degrees. This is furnishing the universities with a most excellent supply of tried and able young men to carry on and direct graduate research.

Again, while it may be true that the smaller insti-

<sup>1</sup> *SCIENCE*, Volume 68, p. 61, July 20, 1928.