studied by members of the agricultural subcommittee of the House Committee on Appropriations of Congress, who have made a tour of the national forests with Major R. Y. Stuart, chief of forest service of the U. S. Department of Agriculture. The members of Congress making the tour were Representatives Dickinson (Rep.), of Algona, Iowa; Summers (Rep.), of Walla Walla, Wash; Buchanan (Dem.), of Brenham, Texas, and Sandlin (Dem.), of Minden, La., all members of the House Committee on Appropriations.

Before sailing for Alaska the party inspected some of the work of the Forest Service in the Lake States, the northern and the northwestern forest districts, and visited the Forest Products Laboratory at Madison, Wis., the national forests in the California, Intermountain and Rocky Mountain districts.

In Alaska the party visited the Tongass and the Chugach, the largest and among the least developed of our national forests. Within these forests are vast stands of spruce and hemlock, which will support a large-scale, permanent pulp and paper industry. Two large sales of timber recently made by the Forest Service have paved the way for the establishment of this industry in the territory. Cut under Forest Service supervision on a sustained-yield basis, by which the annual cut will be no greater than the annual growth, the timber will furnish the industry an unfailing supply of raw material.

National forests in Alaska receive a proportionate share of the appropriations under the forest road section of the federal highway act. To date, 185½ miles of forest road have been built where there were no roads or only exceedingly poor roads before. As evidence of the part such roads play in the development of the region, improvements costing more than $4,500,000 have been constructed along these roads, and by connecting formerly isolated communities and making recreation areas accessible, road construction also brings better living conditions. The policy in road construction is to open up undeveloped territory and projects for construction are selected in places where it is believed that the development will follow. Many new projects are needed to take care of present and future needs.

The Forest Service has also expended a limited amount of money for construction of trails. In this work the aim has been to serve fire protection requirements, open up mineral areas for prospecting and provide short recreational trails near settlements, as well as to provide for the administration needs of the Forest Service.

The Tongass and Chugach forests are given forest fire protection by the Forest Service, but the extensive spruce-birch forests of the interior are without protection. The need for organized fire control for these areas has been pointed out to the members of the congressional committee by C. H. Flory, district forester and commissioner representing the Department of Agriculture in Alaska. Mr. Flory recommended as a first step a reconnaissance of the interior timbered areas, to provide information regarding forest values, game and fur relationships, grazing and other values to be protected.

The Forest Service has adopted a liberal land policy in the territory. Valid mining claims are recognized, and withdrawal of lands valuable for agriculture homesites or industrial development is allowed. Land policies are formulated, however, with the fundamental provision in mind that areas chiefly valuable for timber production may be permanently used for that purpose.

THE GRADUATE SCHOOL OF THE U. S. DEPARTMENT OF AGRICULTURE

THE Graduate School of the Department of Agriculture was established in 1921, and from the beginning, up to and including the school year 1927–28, a total of 766 students had registered and taken work in its courses, according to the annual report of the secretary to Dr. A. F. Woods, director of scientific work of the department and director of the school and of the school council. The report gives the following information in regard to the school.

The number of students registered, from 1921 to the year 1927–28, inclusive, 766.

Sources from which the students were drawn:

Bureau of Agricultural Economics	225
Bureau of Plant Industry	137
Bureau of Chemistry and Soils	72
Bureau of Entomology	39
Bureau of Animal Industry	38
Fixed Nitrogen Laboratory	23
City of Washington, D. C.	22
Plant Quarantine, Extension Service, Bureau of Dairy Industry, each	20
Library of Department	19
Forest Service, Bureau of Home Economics, each	17
Geological Survey	16
Bureau of Public Roads	10
Bureau of Biological Survey, Maryland, each	8
Bureau of the Census, Department of Commerce, each	7
Treasury Department, Office of Information, each	6
War Department, Tariff Commission, each,	4
Weather Bureau	3
Food, Drug, Insecticide Administration, Smithsonian Institution, Office of the Surgeon-General, each	2
Office of Personnel and Business Administration, Colorado, Interstate Commerce	

Commission, Veterans' Bureau, Government Printing Office, Red Cross, Washington, D. C., Public Library, Chamber of Commerce of the United States, Department of Labor, Federal Trade Commission, Health Department, District of Columbia, Children's Bureau, United States Shipping Board, each	1

In order to get such information as could be obtained as to the benefits that have been derived from the school by those who have taken work in it, in May a questionnaire was addressed by Director Woods to all the 766 former students of the school. The returns from the questionnaire indicate that the benefits gained by students have in many instances been quite tangible. Many of the former students reported that the certificates earned were valuable to them in their progress toward collegiate degrees, from the bachelor's to the doctor's. Many others reported their belief that they had made professional advancement in their work in the government service as a result of a heightening and broadening of individual efficiency and usefulness.

Fifty-eight persons reported that they had received credit in universities for their certificates earned in the graduate school, and a tabulation of the data in this respect follows:

George Washington University	26
American University	11
University of Maryland	7
University of Minnesota	3
Ohio State University, University of Wisconsin, each	2
Yale University, University of Chicago, The Johns Hopkins University, Louisiana State University, University of North Dakota, Washington State University, Cornell University, each	1

Certificates of the graduate school have been presented and accepted in credit toward collegiate degrees as follows:

Doctor of philosophy	22
Master of arts	7
Master of science	14
Bachelor of arts	6
Bachelor of science	9

One of the outstanding features of the returns from the questionnaire is the deep interest in the graduate school and almost unanimous high regard for it expressed by those who have taken work in it.

The present plan is to send a similar questionnaire out next May to the students of the 1928–29 school year, and to do so each succeeding year, so that an adequate record of the school may be maintained.

For the mutual benefit of administrative officers of the department and the students who have endeavored to increase their value to the government service and themselves by availing themselves of the advantages of the school, Director Woods plans to furnish the chief of each branch of the department a list of those persons of his staff who have taken a course or courses since the beginning of the school year 1926–1927, together with titles of courses and grades received, and to furnish such a list after the close of each future school year.

In the 1928–29 school year 15 courses were offered and 11 conducted—7 graduate and 4 undergraduate. The total number of students enrolled was 226, as compared with 218 in the year 1927–28, and 111 in the year 1926–27.

The first semester of the 1929–30 school year will open the week of October 21.

FORMAL OPENING OF THE CHEMICAL LABORATORY OF PRINCETON UNIVERSITY

THE exercises formally opening the Princeton Chemical Laboratory will take place at 12:30 o'clock (Daylight Saving Time) on the terrace of the laboratory at Princeton University on Thursday, September 26. The university has invited a number of foreign chemists as well as delegates from the universities, colleges and learned societies of this country. The academic procession will leave Nassau Hall at 12:15 p. m., and proceed to the laboratory. Academic costume will be worn. After the exercises luncheon will be served to delegates, invited guests and the members of the department of chemistry. The laboratory will be open for inspection during the afternoon. At 4:00 p. m. tea will be served in the library of the laboratory by the ladies of the department. At 8:30 p. m. a public lecture will be given by Professor F. G. Donnan, C.B.E., F.R.S., of the University of London, on "The Application of Physical Chemistry to Chemical Industry with especial reference to Catalysis."

The exercises will be succeeded on Friday and on Saturday morning, September 27 and 28, by a symposium on "Catalysis and the Mechanism of Chemical Reactions." It is hoped to summarize the main aspects of the problem of chemical reactivity as at present developed. Many of the invited delegates will remain for this symposium. No general invitation has been issued to this discussion, owing to a severe restriction of housing accommodation in Princeton at this time of the year. Those desirous of attending the meetings on Friday and Saturday would greatly oblige the Princeton authorities if they