Council; John C. Merriam, formerly president of the Carnegie Institution; Waldo G. Leland, secretary of the American Council of Learned Societies; Harry A. Millis, University of Chicago; Walter D. Cocking, University of Georgia, and Edward C. Elliott, president of Purdue University.

In his letter of transmittal to the Congress, President Roosevelt wrote:

> The dependence of civilization on science is universally recognized, but the extent of the activities of private and public agencies carrying on scientific inquiry is not generally known.
>
> It is not likely that large numbers of our people have any adequate realization of the services which are being rendered by the executive agencies of the Federal Government through scientific researches in medicine, agriculture, economics, public administration and the other natural and social sciences.
>
> This report indicates the new emphasis in recent years on activities in the social science fields and stresses the need for effective coordination of all agencies engaged in research in order to achieve the solution of many of our more difficult problems.

The report, entitled "Research—A National Resource," the first of a series in this field, was prepared by the Science Committee of the National Resources Committee and covers the relations of the Federal Government to the problem, while later studies will be concerned with research by universities and colleges, by business organizations, by the large industrial laboratories and by state and municipal governments.

The Federal Government, according to the report, spent on research approximately one dollar for each person in the United States during the fiscal year ending June 30, 1937. The $120,000,000 spent in this field, however, represented only about 2 per cent. of the total budget, in contrast to industrial corporations which spend about 4 per cent. of their budgets on research and universities which spend as much as 25 per cent. The number of professional and scientific workers employed by the Federal Government, under the Classification Act, from 1924 to 1937 has doubled.

The seven recommendations are made by the committee as follows:

1. That two studies be made to supplement those reported in this volume, one of the advisory committees which now cooperate with federal research agencies and one of research carried on by states and municipalities. The latter study may well enlist the cooperation of the state and regional planning boards.

2. That steps be taken to improve the methods of recruiting research workers for governmental service and to provide more effective in-service training for civil employees of the government.

3. That research agencies of the government be authorized and encouraged to enter into contracts for the prosecution of research projects with the National Academy of Science, the National Research Council, the Social Science Research Council, the American Council on Education, the American Council of Learned Societies and other recognized research agencies.

4. That official recognition and, where necessary, financial support be given by the government to international meetings of scientists, and that American participation in international organizations and projects be encouraged.

5. That research within the government and by nongovernmental agencies, which cooperate with the government, be so organized and conducted as to avoid the possibilities of bias through subordination in any way to policy-making and policy-enforcing.

6. That research agencies of the government extend the practice of encouraging decentralized research in institutions not directly related to the government and by individuals not in its employ.

7. That the interrelations of governmental research agencies be furthered by the organization of central councils along the same lines as those exhibited by the existing national councils of research specialists. These interagency councils would serve to systematize the efforts which are now made by various interbureau committees to coordinate the research activities within the government.

LINCOLN'S BIRTHDAY CELEBRATION FOR DEMOCRACY AND INTELLECTUAL FREEDOM

A LUNCHEON was held at the Columbia University Faculty Club on January 23, under the auspices of the New York City Committee of the Lincoln's Birthday Committee for Democracy and Intellectual Freedom. Professor Franz Boas announced that the national committee, consisting of twenty-eight scientific men from all parts of the country, including two Nobel Prize laureates and twelve members of the National Academy of Sciences, are sponsoring public meetings in metropolitan and college communities throughout the country on Lincoln's birthday on February 12.

It is the purpose of these meetings, which are an outgrowth of the Manifesto on Freedom of Science signed by 1,284 scientific men, to show that workers in science and education are ready to participate actively in the defense of democracy and intellectual freedom.

The master meeting will be held in the grand ballroom of the Waldorf-Astoria Hotel in New York City at 1:30 P.M. on February 12. Secretary of Agriculture Henry A. Wallace will speak on "Racial Theories and the Genetic Basis of Democracy." Arrangements have been made to broadcast the addresses over the Red Network of the National Broadcasting Company. Other speakers will be Professor Harold C. Urey, of Columbia University; Dr. Ordway Tead, president of the New York City Board of Higher Education, and Professor Clyde R. Miller, of Teachers College, Columbia University.

At the University of Pennsylvania Roland Morris, formerly U. S. Ambassador to Japan, will preside. The speakers will include Dr. Edward P. Cheyney, professor of history at the University of Pennsylvania; Dr. Marion Park, president of Bryn Mawr College, and Dr. E. G. Conklin, professor emeritus of zoology, Princeton University, and executive vice-president of the American Philosophical Society. In Boston, Dr. Karl T. Compton, president of the Massachusetts Institute of Technology, will preside at a similar meeting, and at the University of Illinois, the meeting, sponsored by seven members of the National Academy of Sciences, will be presided over by Professor Roger Adams.

Plans are under way for meetings at the University of California, Stanford University, the University of Wisconsin, the University of Nebraska, the University of Oklahoma, Purdue University, the University of Kentucky, Miami University, the University of Virginia, Duke University, Connecticut State College, Dartmouth College, Syracuse University, the University of Pittsburgh and other institutions.

THE SECOND ANNUAL WILLIAM LOWELL PUTNAM MATHEMATICAL COMPETITION

PROFESSOR W. D. CAIRNS, secretary of the Mathematical Association of America, announces that the second annual William Lowell Putnam Mathematical Competition will be held on March 4, 1939. This competition was held for the first time last April, and aroused much interest among colleges and universities in the United States and Canada, sixty-seven of which entered one hundred and sixty-three competitors. At that time the University of Toronto won the $500 first prize, with the University of California and Columbia University winning the $300 second and $200 third prizes, respectively. Individual winners were scattered over the continent and were about evenly divided between colleges and universities.

Colleges and universities may enter teams of three or individual contestants; applications may be secured from the Secretary of the Mathematical Association of America and must be filed with him by February 15, 1939.

The competition consists of two three-hour examinations, constructed to test originality as well as technical competence. Questions will be taken from the fields of calculus (with applications to geometry and mechanics), higher algebra, elementary differential equations and geometry.

The first prize is $500 to the department of mathematics with the winning team; second and third prizes are $300 and $200, respectively. Each member of the three winning teams receives $50, $30 or $20 according to the standing of his team.

Each of the five highest-ranking individuals receives a prize of $50, and from this group is selected the one to receive the $1,000 William Lowell Putnam Prize Scholarship at Harvard University (or Radcliffe College, if the winner is a woman). Medals also are awarded to the five highest-ranking individuals as well as to the members of the three winning teams.

Honorable mention will be given this year to the three departments whose teams rank next after the winning three and to the five individuals ranking next after the winning five.

The competition, open to undergraduates in colleges and universities of the United States and Canada, is made possible by the trustees of the William Lowell Putnam Intercollegiate Memorial Fund, left by Mrs. Putnam in memory of her husband, a member of the Harvard Class of 1882. It is designed to stimulate a healthful rivalry in undergraduate work in mathematics.

Complete details concerning the rules of the competition will be found in the January, 1938, issue of the *American Mathematical Monthly* and in pamphlets being distributed to colleges and universities in the United States and Canada. All correspondence should be sent to W. D. Cairns, secretary of the Mathematical Association of America, Oberlin, Ohio.

AWARDS OF THE GEOLOGICAL SOCIETY, LONDON

THE Council of the Geological Society, London, has made the following awards:

The Wollaston Medal.—Frank Dawson Adams, emeritus professor of geology and paleontology in McGill University, for his researches on the pre-Cambrian rocks and on the influence of high temperatures and pressures on the properties of rocks at great depths in the earth's crust.

The Murchison Medal.—Harold Jeffreys, M.A., D.Sc., F.R.S., in recognition of the value of his researches on the constitution and physics of the earth's interior, and, in particular, of the deductions he has drawn from the analysis of records of distant earthquakes.

The Lyell Medal.—William Noel Benson, B.A., D.Sc., professor of geology in the University of Otago, N. Z., in recognition of the wide range and excellence of his geological researches, particularly in New Zealand.

The Prestwich Medal.—Samuel Hazzledine Warren, F.G.S., in recognition of his researches on the geology and archeology of East Anglia, particularly of the Lea Valley.

The Bigsby Medal.—Arthur E. Trueman, D.Sc., professor of geology in the University of Glasgow, in recognition of his outstanding contributions to the knowledge of paleontology and stratigraphy, particularly of the coal measures and the lias.

The Wollaston Donation Fund.—Ivan Sydney Double, M.Sc., for his work on the petrology of sedimentary rocks, especially the Tertiary rocks of the East of England, the glacial deposits, the chalk and the trias.

The Murchison Geological Fund.—Arthur Lennox Coulson, D.Sc., in recognition of his geological work in India, especially that concerned with earthquakes and meteorites and the survey of Rajputana.