

bers of the team being A. M. Gleason, G. R. MacLane, D. M. Merrill. The six individuals receiving honorable mention are: Richard Bellman, Brooklyn College; Harvey Cohn, College of the City of New York; W. S. Loud, Massachusetts Institute of Technology; G. R. MacLane, Yale University; Samuel Manson, Cooper Union Institute of Technology; Hyman Zimmerberg, Brooklyn College.

The fourth annual William Lowell Putnam Mathematical Competition was held on March 1. One hundred and forty-six undergraduate mathematics students from 44 colleges and universities in the United States and Canada took part. Qualified readers graded the examination books, complete anonymity being maintained throughout by the use of numbers instead of names for identification.

The first competition was held in April, 1938, the second in March, 1939, the third in March, 1940. This competition was designed to stimulate a healthy rivalry in the undergraduate work of departments of mathematics in colleges and universities in the United States and Canada, and is open only to undergraduates. The examination questions are taken from the fields of calculus, higher algebra, differential equations and geometry.

The Putnam Competition 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, and is sponsored by the Mathematical Association of America.

#### ADMISSIONS TO THE FELLOWSHIP OF THE ROYAL SOCIETY

THE following were elected on March 20 fellows of the Royal Society, London:

W. N. BENSON, professor of geology, University of Otago, Dunedin, New Zealand; distinguished for his contributions to the geology, petrology and physiography of Australia and New Zealand and in particular for his studies on the ultra-basic igneous rocks.

H. J. BHABHA, reader in theoretical physics, Indian Institute of Science, Bangalore; distinguished for his contributions to the understanding of cosmic ray phenomena and to the fundamental theory of the elementary atomic particles.

E. C. BULLARD, Smithsonian research fellow of the Royal Society; distinguished for his work in geophysics and for the light which his work has thrown on the structure of the Great Rift Valley and on the rock floor deep under the surface in England and the surrounding seas.

C. D. DARLINGTON, director of the John Innes Horticultural Institution; distinguished for his researches in cytology and cytogenetics.

P. I. DEE, university lecturer in physics, Cambridge; distinguished for his experimental work in nuclear physics, in particular on atomic nuclear transformations pro-

duced artificially under bombardment by high speed protons or deuterons.

S. F. DUDLEY, Surgeon Rear-Admiral, medical director-general of the Navy (designated); medical officer in charge R.N. Hospital, Chatham; formerly deputy medical director-general R.N.; distinguished for his work in epidemiology and bacteriology, especially in relation to the spread of diphtheria, influenza and meningitis.

J. C. ECCLES, director of the Kanematsu Memorial Institute for Pathology in Sydney, formerly Rhodes Scholar (Australia) and fellow of Magdalen College, Oxford; distinguished for his physiological researches which have dealt principally with excitation and transmission in the neuromuscular system.

H. W. FLOREY, professor of pathology in the University of Oxford, formerly Rhodes Scholar (Australia), fellow of Gonville and Caius College, Cambridge, and professor of pathology, Sheffield; distinguished for his work in general pathology, in particular on lacteals and lymphatics and on Brunner's glands. His work on "lysozyme" has led to its isolation in a pure form.

A. A. GRIFFITH, research engineer, Rolls Royce, Ltd., formerly Royal Aircraft Establishment, Farnborough; distinguished for researches, ranging from pure physics to applied engineering, which have made notable contributions to the knowledge of strength of materials and to the science and development of aircraft and aero-engines.

H. W. MELVILLE, professor of chemistry in the University of Aberdeen, formerly fellow of Trinity College, Cambridge; distinguished for his outstanding contributions in the study of gaseous reactions and of the mechanism of polymerisation.

J. NEEDHAM, reader in biochemistry in the University of Cambridge, and fellow of Gonville and Caius College; distinguished for his application of biochemical methods to embryology, particularly in relation to the conditions determining embryonic and adult metabolism, and vertebrate development.

SIR DAVID RIVETT, deputy chairman and chief executive officer of the Australian Council for Scientific and Industrial Research, formerly Rhodes Scholar (Australia) and professor of chemistry in the University of Melbourne. His scientific knowledge and leadership have been of great value to the Australian Commonwealth and the Empire.

ALEXANDER ROBERTSON, professor of organic chemistry in the University of Liverpool; distinguished for his researches on the constitution of plant products, and particularly on the important insecticide rotenone.

T. G. ROOM, professor of mathematics in the University of Sydney; distinguished for his work in geometry.

A. J. ROWLEDGE, mechanical engineer, chief designer, Rolls Royce, Ltd., formerly chief designer, D. Napier and Sons, Ltd.; distinguished for innovations in the design and development of internal combustion engines for motor vehicles and aircraft.

H. SCOTT, assistant keeper of entomology in the British Museum (Natural History); distinguished as a field naturalist and systematist. By prolonged visits to the Seychelles, Abyssinia and South Arabia he has greatly advanced our knowledge of the little known and fast disappearing or changing fauna of these areas.

F. E. SIMON, reader in thermodynamics in the University of Oxford; distinguished for the development of new methods of liquefying helium and for his studies of phenomena at the lowest temperatures yet attained.

H. G. THORNTON, head of the bacteriology department, Rothamsted Experimental Station; distinguished for his investigations in soil bacteriology and on the relations existing between nodule-forming bacteria and their leguminous hosts.

R. A. WATSON WATT, scientific adviser on telecommuni-

cations, Ministry of Aircraft Production, formerly superintendent, Radio Department, National Physical Laboratory; distinguished for his contributions to radio engineering, particularly in relation to aerial and marine navigation.

P. BRUCE WHITE, member of the scientific staff of the National Institute for Medical Research, Hampstead; distinguished for his fundamental studies of bacterial immunology, in particular of the antigenic constituents of members of the *Salmonella* group.

## SCIENTIFIC NOTES AND NEWS

DR. JAMES BRYANT CONANT, president of Harvard University, returned on April 15 after two months in England as head of the mission sent by President Roosevelt to make "first-hand observations of recent English scientific research and experience." While in England, he received the degree of doctor of science from the University of Oxford and was entertained at a luncheon given at Burlington House by the president and fellows of the Royal Society.

LAZARUS WHITE, president of Spencer, White and Prentis, construction engineers of New York City, was presented with the 1941 Egleston Medal of the Columbia University Engineering Alumni Association at the seventieth annual dinner of the association held on April 17 at the Columbia University Club. The medal, "for distinguished engineering achievement," was presented by Felix E. Wormser, president of the association.

WILLIAM LOREN BATT, Philadelphia engineer, has been presented with the 1940 Henry Laurence Gantt Memorial Gold Medal for "distinguished and liberal-minded leadership in the art, science and philosophy of industrial management in both private and public affairs." The presentation was made at a dinner of the American Society of Mechanical Engineers, which was held on April 22 at the Engineers' Club of Philadelphia in conjunction with the two-day Management Conference on National Defense, sponsored jointly by the Management Division and the Philadelphia Section of the society. Dr. L. P. Alford, chairman of the Gantt Medal Board of Award, introduced Mr. Batt, and Dr. William A. Hanley, president of the American Society of Mechanical Engineers, made the presentation.

WASHINGTON UNIVERSITY, St. Louis, at a special convocation on April 9, commemorating the seventy-fifth anniversary of its Dental School, conferred the doctorate of science on Brigadier General L. C. Fairbank, Dental Corps, U. S. Army; Dr. Hermann Prinz, professor of materia medica and therapeutics, School of Dentistry, University of Pennsylvania; Dr. Isaac Schour, College of Dentistry, University of

Illinois; Dr. Philip Jay, School of Dentistry of the University of Michigan; Dr. Paul C. Kitchin, College of Dentistry of the Ohio State University; Dr. Alfred P. Rogers, Dental School, Harvard University, and Dr. Raymond C. Willett, of Peoria, Ill.

RAYMOND R. RIDGWAY, Niagara Falls, N. Y., has been elected president of the Electrochemical Society. The society has awarded the thirteenth Weston Fellowship of \$1,000 to Rodney E. Black, of Pawhuska, Okla., who is investigating the plating of molybdenum and tungsten alloys at the University of Wisconsin.

PROFESSOR GARDNER MURPHY, chairman of the department of psychology at the College of the City of New York, was elected president of the Eastern Psychological Association at the recent annual meeting held at Brooklyn College on April 18 and 19. He succeeds Dr. Walter S. Hunter, of Brown University.

DR. NATHAN SMITH DAVIS, III, was reelected president of the Chicago Academy of Sciences at the eighty-fourth annual meeting on April 14. Other officers were elected as follows: Tappan Gregory, *first vice-president*; Dr. Verne O. Graham, *second vice-president*, and Alton S. Windsor, *secretary*. John Nash Ott, Jr., was elected a *member of the Board of Trustees*; Dr. Charles A. Shull, of the University of Chicago, and Dr. L. Hanford Tiffany, of Northwestern University, were elected to the *Board of Scientific Governors*. The speaker of the evening, Dr. A. C. Ivy, professor of physiology and pharmacology at Northwestern University Medical School, was elected an honorary member of the academy. Dr. Ivy's address was entitled, "The Gastrointestinal Hormones and Their Uses."

OFFICERS of the Wildlife Society elected for 1941 are: *President*, Richard Gerstell, chief of the Division of Propagation and Research of the Pennsylvania Game Commission, Harrisburg; *Vice-president*, Walter P. Taylor, leader of the Texas Cooperative Wildlife Research Unit, College Station, Texas; *Treasurer*, Lee E. Yeager, of the Illinois Natural History Survey, and *Secretary* (reelected), Frank C. Edminster, chief