ing 2,781 were devoted to subatomic phenomena and radiochemistry. Abstracts in twenty-four classifications dealt directly with industrial research. The chief fields included: Metallurgy and metallography, 2,338 abstracts; soils, fertilizers and agricultural poisons, 1,993; foods, 1,434; pharmaceutical chemistry, 1,175; fuels, gas, tar and coke, 1,144; petroleum, lubricants, asphalt and wood products, 1,021; water, sewage and sanitation, 924; glass, clay products, refractories and enameled metals, 872; dyes and textile chemistry, 855; mineralogical and geological chemistry, 828; cellulose and paper, 775; electrochemistry, 750; apparatus, plant equipment and unit operations, 736.

Chemical industry and miscellaneous industrial products, 618; paints, varnishes and natural resins, 617; fats, fatty oils, waxes and soaps, 607; acids, alkalies, salts and other heavy chemicals, 543; cement and other building materials, 529; fermentation industries, 478; rubber and allied substances, 449; sugar, starch and gums, 428; leather and glue, 367; photography, 289; explosives and explosions, 181.

Chemical Abstracts is a non-commercial agency which aims to bring to science and industry knowledge of developments in chemistry wherever arising. It reflects the greatest activity in the twenty-eight years of its history.

The report states that more than 2,000 scientific journals published in many languages are examined systematically by 500 chemists who work under the direction of Professor Crane and a staff of forty-five assistant editors. Chemical patents are also abstracted, and these, too, provide evidence of industrial readiness.

THE JOHNS HOPKINS UNIVERSITY RESEARCH CONFERENCES IN BIOLOGY, CHEMISTRY AND PHYSICS

THE departments of biology, chemistry and physics of the Johns Hopkins University will hold a research conference this summer at Gibson Island near Baltimore. The conference will be under the general direction of Professor Neil E. Gordon and will run five weeks from June 22 to July 24. The plan is flexible, varying from day to day according to the nature of the topic under discussion and the wishes of those participating. The day begins with a more or less formal lecture outlining some field of research and directing attention to its unsolved problems. This is followed by a discussion in which each one present takes part, making what contribution he can to the solution of the problems presented. The ideal is to have a group large enough so that all points of view may be represented, yet small enough that all who wish may take active part. The plan is for recognized leaders in each field of research to give the lectures and start the discussions. Its success depends on having a number in the group who are capable of contributing ideas. The remainder of the day is left to sports or conversations. These conferences are intended to combine mental stimulation, pleasant personal contacts and healthful recreation. The Gibson Island Club generously shares its facilities with scientists for this period. The club has an excellent golf course, fine tennis courts and splendid swimming and beaches. There is excellent fishing in the surrounding Chesapeake. Attendants on the conferences may secure rooms in the club or adjacent cottages or may come from Baltimore for the day. Meals for all are served at the club.

The program given below is to be regarded as tentative, to be filled in or modified as may seem best.

A. *Nuclear Physics*—John A. Fleming, *chairman*, June 22–27. Speakers: Drs. E. Fermi and F. Rasetti, M. A. Tuve, G. Breit, J. W. Beams.

B. *Photochemistry*—W. A. Noyes, Jr., *chairman*, June 29 to July 4. Speakers: Drs. E. Teller and O. R. Wulf, R. S. Mulliken, L. A. Turner and P. A. Leighton.

C. *Tissue Respiration*—Charles Glen King, *chairman*, July 6–11. Speakers: Drs. K. A. C. Elliott, C. A. Elvehjem, E. S. G. Barron and F. Bernheim.

D. *Chemistry of Olefins from Petroleum*—Thomas Midgley, Jr., *chairman*, July 13–18. Speakers: Drs. F. C. Whitmore, B. T. Brooks and G. Egloff.

E. *Synthetic Resins*—Leo H. Baekeland, *chairman*, July 20–25. Speakers: Drs. E. E. Reid, H. L. Bender, H. J. Barrett, H. A. Bruson, J. R. M. Klotz, H. T. Neher, G. O. Curme, Jr., and S. D. Douglas, I. Allen, Jr., T. F. Bradley, A. M. Howald, L. V. Redman.

NEIL E. GORDON

IN HONOR OF GEORGE ELLERY HALE

To honor Dr. George Ellery Hale, a symposium was held at the Harvard Observatory on the afternoon of Tuesday, April 7. Brief talks by eight scientists presented some of the important phases of Dr. Hale's work and gave a picture of his extraordinary achievements and his great influence on American science, especially on astronomy. His contributions to astronomy began in his college days, when he first experimented in solar photography. From then on he continued his scientific work, through his student days at the Massachusetts Institute of Technology (when he was also a volunteer observer at the Harvard Observatory). Later, while he built the Kenwood Observatory and then organized the Yerkes Observatory in connection with the University of Chicago, he carried on not only the laborious administrative work but a great deal of astronomical research as well.

Science in many fields is indebted to Dr. Hale for

his activity in the National Academy of Sciences and especially for his part in the creation of the National Research Council. His conviction that it was important to publish results promptly led to the organization of the *Proceedings* of the National Academy, which have continuously brought out short papers on current researches in many sciences by members of the National Academy and their colleagues. Dr. Hale was instrumental also in the founding of the *Astrophysical Journal,* of which he has been an editor from its beginning.

Dr. Hale's founding of the Mount Wilson Observatory, his building of successively greater telescopes for long-distance and large-scale observations, from the 40-inch refractor to the new 200-inch reflector, and his inspiration and efforts that resulted in the creation and growth of the California Institute of Technology are well known to all scientists. That he has achieved so much administratively and at the same time added such a wealth of knowledge in special fields of astronomy, particularly in solar physics and instrumental design, stands as the mark of a great man and a great scientist.

The program of the Harvard symposium, organized by Dr. Harlow Shapley, is as follows:

Biographical Notes. Dean H. M. Goodwin, Massachusetts Institute of Technology.

Dr. Hale as a Student Assistant at Harvard. Professor W. P. Gerrish, Harvard Observatory.

Kenwood and Yerkes Observatories and the Astrophysical Journal. Dr. G. P. Kuiper, Harvard Observatory.

Mount Wilson Observatory. Dr. Robert B. King, Massachusetts Institute of Technology.

California Institute of Technology. Dr. E. B. Wilson, Jr., Society of Fellows, Harvard University.

National Academy of Sciences and the National Research Council. Dr. Arthur L. Day, Geophysical Laboratory, Carnegie Institution of Washington.

Dr. Hale's Contributions to Solar Physics. Dr. Theodore Dunham, Princeton University and Mount Wilson Observatory.

The Manufacture of the 200-inch reflector. Dr. George V. McCauley, Corning Glass Works.

J. MOHR

HARVARD COLLEGE OBSERVATORY

RECENT DEATHS

PROFESSOR EDWARD H. PERKINS, head of the department of geology at Colby College and since 1929 assistant state geologist for Maine, died on April 13 at the age of fifty years.

DR. CHARLES V. GREEN, research associate at the Roscoe B. Jackson Memorial Laboratory at Bar Harbor, Me., was drowned on April 18, when the boat from which he was fishing overturned. He was thirty-four years old.

DR. HARLOW BROOKS, professor of clinical medicine at New York University, past president of the College of Physicians, died on April 13 at the age of sixty-five years.

DR. WILLIAM BRADLEY COLEY, formerly professor of clinical cancer research at Cornell University Medical College, surgeon-in-chief emeritus of the Hospital for the Ruptured and Crippled, New York City, with which he had been connected for forty-five years, died on April 16, at the age of seventy-four years.

WILLIAM LOUIS ABBOTT, formerly director of the Philadelphia Zoological Gardens and honorary associate zoologist of the Smithsonian Institution, died on April 2 at the age of seventy-six years.

Nature reports the death of James Whitehead, fellow of the Imperial College of Science and Technology, who was a leading authority on patent law, especially in its applications to technology, on April 3, aged fifty-eight years; of Dr. W. A. Parr, president of the British Astronomical Association in 1932–34, on April 2, and of Professor J. Stoklasa, director of the State Institute of Research in Plant Products, Prague, on April 4, aged seventy-six years.

SCIENTIFIC NOTES AND NEWS

THE honorary degree of doctor of laws of the University of Wisconsin will be conferred in June on Dr. Isaiah Bowman, president of the Johns Hopkins University.

Nature states that on the occasion of the centenary celebration of the University of London, degrees will be conferred *honoris causa* on thirteen British and six foreign distinguished men, including Sir William Bragg, S. A. Courtauld, Sir Joseph Larmor, Dr. J. W. Mackail, Sir George Newman, Sir Charles Peers and H. G. Wells; and Professor Albert Einstein, Professor Johan Hjort and Professor Max Planck.

DR. M. J. BLISH, chemist of the Nebraska Agricultural Experiment Station, has been awarded the Thomas Burr Osborne Medal for his work in cereal chemistry. Presentation of the medal will occur at the annual convention of the American Association of Cereal Chemists, at Dallas, Texas, on June 2.

AT the recent Kansas City meeting of the American Chemical Society, the Langmuir prize of $1,000 was awarded to Dr. John Gamble Kirkwood, assistant professor of physical chemistry at Cornell University, for his work in molecular chemistry.