NEWS and Notes

Karl T. Compton has been elected director of the McGraw-Hill Publishing Company. Dr. Compton is chairman of the Research and Development Board of the National Military Establishment and chairman of the Corporation of the Massachusetts Institute of Technology.

H. B. Mann, professor of mathematics at Ohio State University, has been appointed visiting professor at the University of California for the academic year 1949–50. Dr. Mann, who recently took several months' leave to head a project at the Applied Mathematics Laboratories of the National Bureau of Standards, has returned to Ohio for the summer quarter.

Allen Goodrich Shenstone, of Princeton University, has been appointed acting chairman of the Department of Physics in the absence of Henry de Wolf Smyth, who is on leave as a member of the Atomic Energy Commission.

Albert Claude, associate member of the Rockefeller Institute, has been appointed professor at the University of Brussels, and director of the Institut Jules Bordet.

Nelson Marshall, director of the Virginia Fisheries Laboratory, has been appointed dean of the College of William and Mary. He will continue to serve in the laboratory, which is an associated organization of the college.

Wallace R. Brode, associate director of the National Bureau of Standards, has been appointed a member of the Board of Governors of the American Institute of Physics to replace the late **A. H. Pfund** of Johns Hopkins University. Dr. Brode will represent the Optical Society of America; he is a member of the Society's Board of Directors and associate editor of its journal.

Julius S. Youngner, formerly of the National Cancer Institute has been appointed assistant research professor of bacteriology at the University of Pittsburgh's School of Medicine.

John C. Warner, head of the chemistry department of the Carnegie Institute of Technology, has been named president-elect to succeed **Robert E. Doherty,** who will retire on July 1.

Visitors

Recent visitors at the National Bureau of Standards were: **Hadji Argyris,** head of the aircraft structures research group of the Royal Aeronautical Society of Great Britain; **G. McAlpine,** engineer with Kelvin Bottomley and Baird, of England; **A. Strasheim,** head of the Spectrochemical Section, National Physical Laboratory, Union of South Africa; **André Houpeurt,** chief of the Production Laboratory, French Institute of Petroleum, Paris; **Edy Velander,** director of the Royal Swedish Academy of Engineering Sciences, Stockholm.

N. Kurti, physicist of Oxford University, England, will take part in the Symposium on Modern Physics to be held at Oak Ridge, August 22–September 2.

Grants and Awards

The Charles Goodyear Medal for outstanding achievement in rubber chemistry was awarded to Harry L. Fisher, director of organic research of U. S. Industrial Chemicals, Inc., at the May 24 meeting of the American Chemical Society's Rubber Division, in Boston.

The first **Lester N. Hofheimer Research Award** of fifteen hundred dollars was given to Benjamin Pasamanick, head of the Children's Service, Division of Psychiatry, Kings County Hospital, Brooklyn, New York, at the recent convention of the American Psychiatric Association. The award is offered to the psychiatrist under 40 years of age who has published the best research in the preceding three years. Dr. Hofheimer's paper "A Comparative Study of Behavioral Development of Negro Infants" appeared in the *Journal of Genetic Psychology,* 1946, Vol. 69.

Ward Harrison, retired director of the Engineering Division of General Electric Lamp Department, has been awarded the 1949 **I. E. S. Gold Medal** by the Illuminating Engineering Society for his contributions to all phases of illumination development. The award will be presented at the I. E. S. National Technical Conference to be held at French Lick, Indiana during the week of September 19.

H. Trendley Dean, director of the National Institute of Dental Research, will receive the **Gorgas Award** for outstanding contributions in the field of military medicine. It will be presented November 11 at the annual banquet of the Association of Military Surgeons of the United States, which selected Dr. Dean for the award.

Recipients of the first **Medical Library Association scholarships,** from funds granted by the Rockefeller Foundation are: Lydia Pazos Pérez, assistant to the director of the Library of the Faculty of Medicine, University of Havana; María Alicia Izquierdo Guzman, assistant in the Library of the Faculty of Medicine, University of Chile; and María José Lessa da Fonseca, librarian of the Faculty of Medicine, University of São Paulo, Brazil.

Fifteen winners of the 1949 **Indiana Science Talent Search** were given memberships in the AAAS by Walter Leckrone, editor of the *Indianapolis Times.* The awards were presented by the chairman of the Talent Search Committee, R. W. Lefler, Department of Physics, Purdue University.

Alfred P. Sloan, Jr., has given one million dollars to the **Massachusetts Institute of Technology** for its new metals-processing laboratory. The laboratory is to be named for Mr. Sloan.

Eli Lilly and Company of Indianapolis has awarded nine thousand dollars to John C. Krantz, Jr., professor of pharmacology, University

of Maryland School of Medicine, for research on the action of drugs useful in the treatment of hypertension and cardiovascular diseases.

Howard E. Fritz, vice president of the B. F. Goodrich Company in charge of research, was named 1949 winner of the **Lamme Medal of Ohio State University,** on June 10. Dr. Fritz was cited for his development of Koroseal and rubber products for use in chemical engineering industries.

Colleges and Universities

Rhode Island State College, with the cooperation of the Woods Hole Oceanographic Institution, has established a graduate student training program in biological oceanography and marine fisheries biology. Instruction and supervision of research will be provided by members of the staffs of the two institutions, with emphasis placed on open ocean investigation. Arrangements are being made for a limited number of students who will enroll as candidates for the M.S. degree in marine biology. The first year will be spent in Kingston and at the Narragansett Marine Laboratory; the second year at Woods Hole. Those qualified for basic oceanographic research will occupy quarters provided for them in the Woods Hole Oceanographic Institution, and those preparing for a career in applied fisheries biology may be assigned to the U. S. Fish and Wildlife station. The program is under the general supervision of Charles J. Fish and applications should be addressed to the Director of Admissions, Rhode Island State College, Kingston, R. I. Candidates for this curriculum may also make application for a fellowship. There are five available at the rate of $1,500 per year.

Meetings and Elections

Computers. More than two hundred people assembled at Oak Ridge last April to attend a meeting of the Association for Computing Machinery. The program was devoted primarily to an assessment and evaluation of large scale computing machinery as a scientific tool, and to discussions of the hazards that beset the unwary user. But there were side attractions too, such as a visit to the American Museum of Atomic Energy, now permanently installed in Oak Ridge, and a demonstration of the IBM Corporation's new model 604 multiplier.

The demand for high speed automatic machinery becomes increasingly great in all phases of science and technology, nuclear science along with the rest. In atomic energy laboratories, IBM installations are standard equipment for scientific computing. Considerable use is being made of the ENIAC, the SSEC, and Harvard's Mark I, and some of the improved versions now under development will no doubt be acquired. This was the motivation for holding the meeting in one of the principal centers of atomic research. There were, however, other organizations interested in the use or development of these machines represented on the program and among the attendance.

The National Bureau of Standards had the largest representation on the program with a total of six papers. Some papers dealt with computational techniques for large scale calculations and the special difficulties that arise therein and some dealt with problems of design. At least five of the papers represented work done, in whole or in part, for the armed forces, not to mention the banquet speech by Nina Rees, of the Office of Naval Research, on "The Forgotten Man of Computing." A brief report on developments in Australia was given by T. G. Room, of the University of Sydney.

Besides the classical problems of solving complicated equations and systems of equations, two more recent computational techniques were discussed. One is an application of the theory of games; the other is the use of stochastic methods, or what is now called the Monte Carlo Technique. Of these, the former has importance for the military, the latter is much used in atomic energy research. Both are distinctly techniques for large scale computing.

Although most of the program was devoted to digital machines, two papers dealt with machines of the analogy type. One was by S. H. Caldwell, on the differential analyzer; the other by Ray Pepinsky, whose machine for use in crystal analysis has received much acclaim since its recent completion.

Special efforts were made by the Oak Ridge Institute of Nuclear Studies, one of the sponsors of the meetings, to bring out interested research workers from the academic institutions of the Southeast. This was thought desirable because as more machines become available their use in academic research will spread.

Besides the Institute, the other sponsors of the meetings were Oak Ridge National Laboratory, Carbide and Carbon Chemicals Corporation, and Fairchild Corporation, NEPA Division.

A. S. HOUSEHOLDER

A symposium on modern physics will be held at Oak Ridge August 22–September 2, under the sponsorship of the Oak Ridge National Laboratory and the Oak Ridge Institute of Nuclear Studies. The 32 lectures to be given will include such topics as the current status of meson theory, the new quantum electrodynamics recent progress in low temperature physics, declassified nuclear reactor theory, and classical nuclear physics. The lecture staff will be composed of physicists who are spending the summer at the laboratory—among them S. M. Dancoff, University of Illinois; J. C. Daunt, Ohio State University; Eugene Feenberg, Washington University; Hubert M. James, University of Illinois; and Alvin M. Weinberg, Oak Ridge National Laboratory.

The American Mathematical Society will hold its 55th summer meeting at the University of Colorado, Boulder, August, 30–September 2, in conjunction with the summer meetings of the **Econometric Society,** the **Institute of Mathematical Statistics,** and the **Mathematical Association of America.** The 31st colloquium, on topological dynamics, will be presented by G. A. Hedlund, of Yale University.

The Second International Biometric Conference will be held at the University of Geneva in Switzerland on August 30–September 2,

under the sponsorship of the Biometric Society. Aspects of biometry which will be considered in the scientific sessions include recent applications in genetics, teaching and education, experimental design, the present status of the science, industrial applications and biological assay. The conferences will close with a session of contributed papers. Further information and reservations are obtainable through the Secretary of the Conference Committee, Professor Arthur Linder, 24 Avenue de Champel, Geneva, Switzerland.

The First International Congress of Civil Engineering was held in Mexico City April 30–May 7, at the invitation of the Colégio de Ingenieros Civiles de México. Approximately 800 civil engineers were in attendance—nearly 200 from outside Mexico, with 24 countries represented. The technical program included some 175 papers dealing with all aspects of civil engineering, with particular emphasis on practice throughout the Latin American countries. Technical works visited on inspection trips during the week included the Lerma River water supply project of Mexico City, Valsequillo Dam in the State of Puebla, and the Tecamachalco Experimental Laboratory of the Department of Hydraulic Resources. Following the congress, there were trips for a number of the delegates to civil engineering works of interest at more distant points. It is planned that the Second International Congress of Civil Engineering will be held in 1953 at a location to be determined later, possibly Brazil or Puerto Rico.

Industrial Research Institute, Inc., New York City, elected the following officers at its annual meeting May 23–25: J. H. Schaefer, Ethyl Corporation, president; C. F. Rassweiler, Johns-Manville Corporation, vice president. C. G. Worthington was reappointed secretary-treasurer.

Lewis L. Strauss, member of the U. S. Atomic Energy Commission, was elected president of the **Corporation of the Institute for Advanced Study,** Princeton, New Jersey at its recent annual meeting. Herbert H. Maass of New York, who had been both president and chairman of the board, was reelected chairman of the board.

The Latin American Unesco Field Science Cooperation Office, following the suggestion of the Latin American Conference of Scientific Experts held in Montevideo in September, 1948, is collecting for publication biographical and technical data on scientists and scientific institutions and societies.

All Latin American scientists and scientific organizations are invited to send any possible information on their activities to Centro de Cooperación Científica para América Latina de la Unesco, Agraciada 1875, Montevideo.

The New York Zoological Society has just placed on exhibition a collection of rare birds and mammals captured by its Belgian Congo Expedition, which returned June 15. Charles and Emy Cordier, animal collectors for the society, spent over a year and a half assembling the two hundred specimens, which include a baby mountain gorilla, an okapi, Congo peacocks, black guinea fowl, giant pangolins, aardvarks, at least seven kinds of monkeys, elephant shrews, a finfoot, and sunbirds.

One of the most difficult problems facing the Cordiers on their return was that of providing a substitute diet for the animals. Giant pangolins and aardvarks feed on termites; elephant shrews subsist on a diet of grasshoppers. Mr. Cordier has accustomed these mammals to a diet including raw meat, eggs, and milk. Sweet potato leaves, customary food for the Colobus monkeys and antelopes, have been supplied to the Bronx Zoo by the A and P grocery chain.

The Australian Council for Scientific and Industrial Research, a body responsible to the federal government through a cabinet minister, has recently been reconstituted as the Commonwealth Scientific and Industrial Research Organization. The change in name is accompanied by some changes in administration, concurrently with the election of a new executive body. This body of the C.S.I.R.O. has now assumed greater responsibility, although the full council still functions in an advisory capacity to the executive. The Australian Commonwealth government announced on May 18 that the new executive would consist of the following: chairman, Ian Clunies Ross; chief executive officer, F. W. G. White; both former members of the executive of C.S.I.R. The appointments will be for seven years. They succeed respectively Sir David Rivett, F.R.S., who will however, remain associated with the new organization as chairman of the advisory council, and A. E. V. Richardson, whose ill health has necessitated his retirement. The third full time executive member will be S. H. Bastow, formerly chief of the Division of Tribophysics, C.S.I.R., appointed for five years. The fourth member will be D. A. Mountjoy whose three year term expires next November. H. J. Goodes, assistant secretary, Commonwealth Treasury, has been appointed for three years to the fifth seat on the executive.

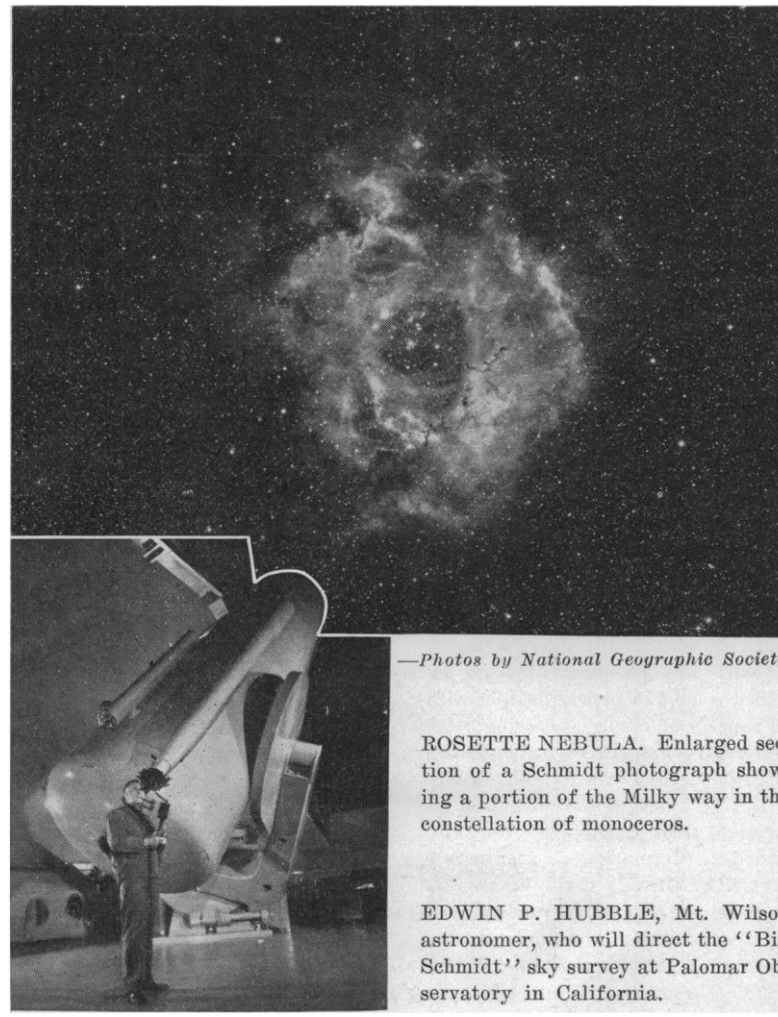
The reason for reconstitution of the council is the desire of its members, and Australian scientists generally, to avoid restrictions in carrying out fundamental scientific research devoted to the development of Australian resources and industries. During the war, responsibility for a considerable amount of both fundamental and applied research for supply departments and the armed forces devolved upon the C.S.I.R., but it is the wish of the government and of scientists in Australia that complete freedom be retained, as far as possible, for postwar research in nonmilitary matters, which are rightly the concern of C.S.I.R.O. Consequently, research work of a nature which should be restricted because of its importance to national defense is now to be carried out by the Department of Supply and Development, which has assumed the responsibility for the administration of the Division of Aeronautics (formerly a division of C.S.I.R.), Defense Research Laboratories (formerly Munitions Supply Laboratories), and the Long Range Weapons project.

A four-year survey of the sky will begin July 1 at Palomar Observatory, under the joint sponsorship of the National Geographic Society and the California Institute of Technology. The aim of the project is to provide a comprehensive sky atlas, for use primarily in selecting areas and objects for intensive study with more powerful telescopes.

Palomar's 48-inch Schmidt telescope, which will be used for the photomapping, has already been in operation for two or three years, piling up work for the observatory's new 200-inch telescope. The Schmidt's wide angle lens, which can focus on a single 14 x 14-inch plate a swathe of sky equal to a dozen diameters of our moon, will scan the sky in broad quadrangles. Identical exposures through blue and red filters will be made for each area. Palomar astronomers expect to obtain no more than four pairs of matching red and blue plates in a single night, even under ideal weather conditions. A blue exposure takes 30 minutes; a red, about an hour.

Three-fourths of the heavens can be reached from Palomar with high accuracy; an additional ten percent can be covered in some degree. A supplementary survey of the remainder will be made after the four-year study is completed. The Palomar survey will record some five hundred million stars and perhaps ten million complete stellar systems of extragalactic nebulae. The resultant sky atlas, equivalent in size to 20 large volumes, will comprise reproductions of more than 2,000 overlapping plates.

The Schmidt telescope, invented in 1930 by Bernhard Schmidt, was the most significant advance in astronomical instruments for several decades. Parabolic reflectors like the 200-inch at Palomar have a very small field—only a fraction of a degree—and of that small field only a small area in the center is well defined. Schmidt discovered how to get sharp definition at low focal ratios. He did this by interposing at the center of curvature of a spherical mirror a thin correcting plate, deformed so as to parabolize the sphere, so to speak. By this means, light rays, first refracted by the correcting lens and then reflected from the mirror, focus uniformly on the photographic plate. For speed and convenience the Schmidt camera serves as the miniature camera of astronomy.



—*Photos by National Geographic Society*

ROSETTE NEBULA. Enlarged section of a Schmidt photograph showing a portion of the Milky way in the constellation of monoceros.

EDWIN P. HUBBLE, Mt. Wilson astronomer, who will direct the "Big Schmidt" sky survey at Palomar Observatory in California.

Make Plans for—

National Education Association, July 3–8, Boston, Massachusetts.

American Educational Research Association, July 4, Boston, Massachusetts.

American Veterinary Medical Association, July 11–14, Detroit, Michigan.

1st International Congress of Biochemistry, August 19–25, Cambridge, England.

4th International Conference of the International Association of Quaternary Research, August 22–September 15, Budapest, Hungary.

International Union for the Scientific Study of Population, August 27–September 3, Geneva.

British Association for the Advancement of Science, annual meeting, August 31–September 7, Newcastle-upon-Tyne, England.

15th International Conference of the International Union of Chemistry, September 6–10, Amsterdam, Holland.