public health and preventive medicine an appropriation was made to Dalhousie University, Halifax, Nova Scotia. During 1933 the foundation provided 295 fellowships in the medical sciences. In addition, research aid grants in sums varying from $55 to $3,000 enabled sixty-one investigators and groups to carry on research work.

Foundation appropriations in the natural sciences amounted to $807,250. For specific programs of research in the vital processes, particularly in biology and psychology, and in the field of the so-called earth sciences, contributions were made to a number of institutions, among them the California Institute of Technology for research in biology and chemistry; the University of Chicago for biological research; the National Research Council for research in problems of sex and the effects of radiation on living organisms; the Roscoe B. Jackson Memorial Laboratory in Bar Harbor, Maine, for research in mammalian genetics, and the Massachusetts Institute of Technology for aerological research. In addition to the more important grants, awards comparatively small in amount were made for the purpose of exploring new fields of study and increasing opportunities for work which has been retarded because of the present economic situation.

The total number of fellowships in the natural sciences administered by the Rockefeller Foundation during 1933 was eighty-nine. In addition, eighty-eight individuals received new appointments for fellowships administered by the National Research Council with funds supplied by the foundation.

SCIENTIFIC NOTES AND NEWS

DR. AMBROSE SWASEY, of Cleveland, was guest of honor at a dinner given in New York City on the occasion of the celebration of the twentieth anniversary of the Engineering Foundation. Dr. Swasey, who will be eighty-eight years old on December 19, established the foundation in 1914 and has contributed $750,000 to its endowment. Dr. Karl T. Compton, president of the Massachusetts Institute of Technology, and Dr. Frank B. Jewett, president of the Bell Telephone Laboratories and vice-president of the American Telephone and Telegraph Company, were the principal speakers. Harry P. Charlesworth, chairman of the foundation, presented to Mr. Swasey a volume containing expressions of felicitation and gratitude on behalf of the various organizations comprising the Engineering Foundation.

DR. EDWIN O. JORDAN, until his retirement in 1933, after forty-one years' service to the university, chairman of the department of hygiene and bacteriology of the University of Chicago, was awarded the Sedgwick Memorial Medal for distinguished service in public health at the Pasadena meeting of the American Public Health Association. Dr. Jordan still offers graduate courses at the university.

COLLEAGUES of Dr. Edward R. Baldwin, director of the Edward L. Trudeau Foundation, Saranac Lake, marked his seventieth birthday on September 8, by presenting him with an armchair. Dr. James Woods Price made the presentation speech at a gathering at Dr. Baldwin's home in the evening, attended by about twenty-five physicians.

DR. DONALD CHURCH BALFOUR, of the Mayo Clinic, Rochester, Minn., was elected president of the American College of Surgeons for 1935–36 at the recent meeting in Boston to succeed Dr. Robert B. Greenough, of Boston. The two vice-presidents chosen were Dr. Arthur W. Allen, of Boston, and Dr. John A. Gunn, of Winnipeg. Members of the Board of Regents to serve during the term expiring in 1937 are: Dr. Samuel C. Harvey, of New Haven, Conn.; Dr. Allen B. Kanavel, Chicago; Dr. Charles H. Mayo, Rochester, Minn.; Dr. Alexander R. Munroe, Edmonton, Alberta, Canada, and Dr. J. Bentley Squier, of New York City. Surgeons receiving honorary fellowships were: Sir Harold Gillies, of London, plastic surgeon at St. Bartholomew's Hospital; Dr. Josef Halban, professor of gynecology at the University of Vienna; Harry Platt, lecturer in orthopedic surgery at the University of Manchester, and Dr. Bethel Solomons, of Dublin, examiner in obstetrics and gynecology at the Royal College of Physicians and Surgeons of Ireland.

DR. HERMANN VON SCHRENK, St. Louis, Mo., consulting timber engineer of the New York Central Lines and senior vice-president of the American Society for Testing Materials, was elected president of the society on October 9, to fill the vacancy caused by the death on July 21 of W. H. Bassett soon after he took office as head of the society. The vacancy caused by Dr. von Schrenk's election was filled by the election of H. S. Vassar as senior vice-president. A. C. Fieldner, chief engineer of the Experiment Stations Division, U. S. Bureau of Mines, was elected junior vice-president.

B. F. SHEPHEARD, manager of the rock drill department of Ingersoll-Rand Company, was elected president of the American Society of Metals at the recent annual meeting of the society in New York City.

DR. C. E. KENNETH MEES, director of the Eastman Kodak Company, has been elected a vice-president of the company.

AT the annual meeting of the Virginia Chapter of Sigma Xi, the following officers were elected: Dr. J. W. Beams, professor of physics at the University of Virginia, *president;* Professor Walter S. Rodman, professor of electrical engineering, *vice-president,* and Dr. Edwin M. Betts, *secretary-treasurer.*

OFFICERS of the Indiana Chapter of the Society of Sigma Xi for the coming year are: *President,* P. M. Harmon, physiology; *Vice-president,* C. E. May, chemistry; *Secretary,* C. M. Louttit, psychology; *Treasurer,* W. D. Thornbury, geology. At the same meeting the retiring president, Dr. Paul Weatherwax, gave an illustrated paper on "Indian Corn in Ancient America."

SIR JOHN CADMAN and Sir James Jeans have become members of the Advisory Council to the Committee on Scientific and Industrial Research of the British Privy Council.

The British Medical Journal reports that Professor Bruno Oskar Pribram, director of St. Hildegard's Hospital of Berlin, has been made a corresponding member of the Société Nationale de Chirurgie of Paris; Dr. Ludwig Robert Müller, professor of internal medicine at Erlangen, honorary member of the Neurological Society of Tokyo, and Dr. Ludwig Frankel, professor of obstetrics and gynecology at Breslau, honorary member of the Italian and Brazilian Societies of Gynecology and Obstetrics.

THE Board of Regents of the University of Michigan has established a Jonathan Taft professorship in dentistry for Dr. Marcus L. Ward, who retired as dean of the school of dentistry in August. The professorship takes its name from that of the first dean of the school and it was given to Dr. Ward to enable him to devote his time to teaching and special research.

DR. HOKE S. GREENE, development and production chemist of the E. I. du Pont de Nemours and Company, of Niagara Falls, N. Y., has been appointed to an assistant professorship of chemical engineering at the University of Cincinnati.

DR. PHILIP HILLKOWITZ, of the Ohio Medical College, has been appointed associate professor of chemistry at the University of Denver, and will have charge of a newly established course in medical technology.

DR. PETER MÜHLENS, professor of tropical diseases at Hamburg, has been appointed director of the Hamburg Institute for Tropical Diseases, in which he had been serving as department director. Dr. Erwin Jacobsthal, docent in the university, has been called to the University of Guatemala as professor and director of the Institute of Bacteriology.

A. S. ARGUELLES, assistant director of the Philippine Bureau of Science, has been appointed director to succeed Dr. William H. Brown, retired. Mr. Arguelles is the first Filipino director of the Bureau of Science since its foundation in 1901. Dr. Leopoldo A. Faustino, chief of the Division of Mines, has been appointed assistant director.

DR. J. M. AIKMAN, associate professor of botany at the Iowa State College, has been given leave of absence to become senior botanist in the shelter belt project of the U. S. Department of Agriculture.

DR. J. G. WOODROOF, formerly horticulturist at the Georgia Experiment Station at Griffin, has become horticulturist for the Federal Emergency Relief Administration for the southern states. Besides directing a general horticultural program for rural rehabilitation families in this area, he is in charge of a project of planting 5,000 acres of improved varieties of muscadine grapes.

ACCORDING to *Industrial and Engineering Chemistry,* Thos. R. Cunningham, chief chemist of the Union Carbide and Carbon Research Laboratories, Inc., at Long Island City, N. Y., has been transferred to Niagara Falls, N. Y., where the corporation has recently completed the erection of a modern research laboratory.

LEE R. DICE, of the Museum of Zoology of the University of Michigan, has been made acting director of the Cranbrook Institute of Science, Bloomfield Hills, Mich., to succeed Victor H. Cahalane, who has resigned to enter the National Park Service. Harold J. Leraas has been appointed to replace Donald T. Ries in charge of vertebrate zoology.

DR. MADISON BENTLEY, Sage professor of psychology at Cornell University, has leave of absence. He plans to spend the first term at Santa Fé, N. M., where he will continue his work in Indian research under the Carnegie Foundation.

DR. M. J. BONN, lecturer on folk lore at Berlin, will be visiting professor at the University of California in Berkeley for the second semester. He is expected to arrive in New York on December 22.

PROFESSOR BRONISLAW MALINOWSKI, professor of anthropology at the University of London, who has spent the past three months in research work in Africa, plans to spend six weeks in the United States in the spring.

DR. JAMES P. LEAKE, senior surgeon, U. S. Public Health Service, Washington, D. C., gave an illustrated lecture before a joint meeting of the Institute of Medicine of Chicago and the Chicago Society of Internal Medicine at the Chicago Woman's Club on October 26. His subject was "Poliomyelitis, with Special Reference to Epidemiology." Dr. Leake has been in

California for several months studying the epidemic there.

DR. MAURICE N. RICHTER, of the College of Physicians and Surgeons, Columbia University, addressed the Pathological Society of Philadelphia on October 11 on "Experimental Aspects of Leukemia."

THE Founders' Day address at the School of Medicine of Northwestern University was made by Dr. Leslie B. Arey, Robert L. Rea professor of anatomy, on "Old Ideals in Modern Medicine."

PROFESSOR EDWARD KASNER, of Columbia University, is giving six lectures on "Specimens of Higher Mathematics" at the New School for Social Research, New York City.

THE council of the American Association for the Advancement of Science has appropriated $3,000 for grants in aid of research. It is the policy of the association to make the grants of small amount and its preference to give them to research workers in smaller and less well-known institutions. Professor Arthur H. Compton, chairman of the committee on grants, is at present in Europe and applications should be addressed to the permanent secretary of the American Association for the Advancement of Science, Smithsonian Institution Building, Washington, D. C.

THE 194th regular meeting of the American Physical Society will be held at Washington University, St. Louis, on Friday and Saturday, November 30 and December 1. This meeting will celebrate the opening of the new laboratories of physics. On Saturday morning there will be a special symposium on x-ray scattering with papers by G. E. M. Jauncey, G. W. Stewart, E. O. Wollan and W. H. Zachariasen. In addition there will be programs of contributed papers. The following meeting will be held on December 21 and 22 at Los Angeles, Calif., and the annual meeting will be held on December 27, 28 and 29 at Pittsburgh, Pa., in conjunction with the meeting of the American Association for the Advancement of Science.

ON October 13, the San Diego Society of Natural History celebrated with open house at its museum in Balboa Park, San Diego, the sixtieth anniversary of its founding. The society was incorporated on October 9, 1874, and is the oldest scientific institution in southern California. With the single exception of the California Academy of Sciences in San Francisco, it is older than any scientific institution west of the Rockies.

APPLICATIONS for the position of metallurgist in the Ordnance Bureau, War Department, with headquarters at Rock Island, Ill., must be on file with the U. S. Civil Service Commission at Washington, D. C., not later than November 8. The entrance salary is $3,800 a year, subject to the usual deductions. Applicants must show that subsequent to college graduation they have had at least five years of progressive professional experience in important and responsible physical metallurgical work which must have included the supervision of and responsibility for the work of others. Postgraduate work in physical metallurgy successfully completed in a college or university of recognized standing may be substituted year for year for the prescribed experience up to a maximum of three years.

APPLICATIONS for the positions of agent for home economics and special agent for home economics education (special groups), Office of Education, Department of the Interior, must be on file with the U. S. Civil Service Commission at Washington, D. C., not later than November 19, 1934. The entrance salary for agent for home economics is $4,600 a year, and for special agent for home economics education (special groups) $3,800 a year, subject to the usual deductions. Competitors will not be required to report for a written examination, but will be rated on their education and experience and on a thesis or published writings.

ACCORDING to an Associated Press dispatch, after a ten-year search for a desirable site, an observatory to house the large telescope with the 200-inch mirror will be erected, if terms can be arranged, on Palomar Mountain, eighty miles northeast of San Diego. Representatives of the California Institute of Technology met on September 22 with William Beech on the Beech ranch on Palomar Mountain to make final arrangements to acquire the site for the observatory. Palomar Mountain is the only peak in the vicinity which does not border the desert country on the east or lie too close to the ocean on the west, which is said to give it the atmospheric conditions regarded by astronomers as particularly favorable.

AN anonymous donor has given $400,000 to construct the building for a new Laboratory of Chemistry at Trinity College, Hartford, Conn. The alumni now seek to raise by December 1 $100,000 for equipment and $200,000 as an endowment to provide for operating expenses. Plans for the building are being prepared by McKim, Mead and White, architects of New York, who with Dr. Vernon K. Krieble, Scoville professor of chemistry, have recently completed a study of chemical laboratories in other colleges.

THE Biological Station at Hamilton, Bermuda, has converted a former power station into a library to house the 6,000 volumes given by Dr. E. L. Mark, of Harvard University, formerly director of the station. Funds to make the building fireproof were given by Mrs. Charles Griffith, of Ardmore, Pa.

THE Institute of Medicine of Chicago again offers the Joseph A. Capps Prize of $500 for the most meritorious investigation in medicine or in the specialities of medicine, or in the fundamental sciences provided the work has a definite bearing on some medical problem. Competition is open to graduates of Chicago medical schools who have received the degree of M.D. during the year 1932 or thereafter, and manuscripts must be submitted to the secretary of the institute, 122 South Michigan Boulevard, Chicago, not later than December 31, 1934. If no paper presented is deemed worthy of the prize, the award may be withheld at the discretion of the Board of Governors.

UNDER the will of Mrs. Mary Jane Williams, widow of Dr. Charles Theodore Williams, honorary fellow of Pembroke College, Oxford, £30,000 is left to the University of Oxford, to be expended in the promotion of medicine; £5,000 to the Royal College of Physicians, and a large residue to Pembroke College.

DISCUSSION

REFORM IN THE SYSTEM OF SCIENTIFIC PUBLICATION

THE following proposal, submitted to the sixteenth International Geological Congress in its session in Washington on Friday, July 28, 1933, and approved by the congress, may be of interest in connection with the articles of Dr. Seidell and Dr. Visscher in SCIENCE for July 20, 1934, page 70, and September 14, 1934, pages 245–246, respectively.

A PROPOSAL OF THE ASSOCIATION OF SCIENTIFIC INSTITUTIONS OF THE MINING INDUSTRY IN THE U. S. S. R. TO THE INTERNATIONAL GEOLOGICAL CONGRESS, XVI SESSION, IN WASHINGTON, U. S. A.

The growth of special scientific literature, published chiefly by numerous scientific institutions, is increasing with marked rapidity. It becomes more and more difficult to follow up this special literature, and it wastes a great deal of the time of investigators. In consequence of this, special periodicals are issued exclusively for the purpose of reviewing and summarizing these scattered publications. In other periodicals again much space is taken up in reviewing articles. Some small papers are reviewed several times over, and altogether more time and money is spent on the publishing of the reviews than on these papers themselves. A means of diminishing as far as possible this nonproductive work and of making scientific literature accessible to every person of moderate means, living far from great centers with large libraries, is available:

1. By dividing up even the most specialized periodicals, geological, mineralogical, etc., into "separates."

2. By centralizing and systematizing these "separates" in central bibliographical institutes for every subdivision of science in every country.

At the beginning some subdivisions of science may be centralized especially in countries where a small number of scientific papers is published. In these institutions a subscription is to be organized not for periodicals, but according to subjects.

It is proposed that every scientific paper should be published as a separate, preserving on it the numbering of the pages of the periodical. Many scientific institutions practice this mode of publishing. The scientific institutions of the U. S. A. in particular have in this way greatly contributed to the progress of scientific research.

The publishing of separates is helpful not only to scientists but to the smaller libraries as well. Such separates would enable the libraries to avoid unnecessary duplication. It is useful, on the other hand, to issue these publications in complete and uniformly bound volumes. It follows, therefore, that to save the money both of the publishers and of the readers, the methods of publication used by the institutions should be regulated as follows:

1. Scientific institutions for the purpose of exchange with other institutions and for distributing their publications among large libraries should as far as possible issue their publications in complete bound volumes.

2. Scientific institutions for the purpose of circulating the results of the research of their members as widely and as rapidly as possible should issue each publication in separates and at as low a price as possible, which should be printed on the back of the cover.

For the complete success of this project, it is necessary that private persons publishing special scientific periodicals should introduce a twofold method of publication—as separates and in complete volumes. The profit the publisher obtains from the sale of separates will certainly compensate the fall in the number of annual subscribers.

All the aforesaid concerns only those periodicals that publish larger articles; short notices and articles (of one or two pages) which are not suitable for printing as "separates" should be published according to the subject they treat (geology, mineralogy, petrology, etc.) in special periodicals (*The American Mineralogist, Centralblatt für Geologie*, etc.).

To make the work of assistants in the central institutes entirely mechanical it will be necessary to print on the cover of the separates the symbols (letters or ciphers) assigned by the International Catalog of Scientific Literature to the given branch of science.

For example; on the cover of the separate: Serra, Aurelio, Su un notevole granato di Fluminimaggiore. Napoli, Rend, Acc. Sc. (ser. 3) **16**, 1910 (222–224):

In the left-hand upper corner should be printed 60 dh; 60 = Geographical distribution, dh = Italy. In the right-hand upper corner should be printed 50; 50 = Descriptive mineralogy.

As it is difficult to judge from the title what signifi-