but from an indirect coupling of the proton to the deuteron through the medium of the two electrons in the HD molecule. It is as much an intrinsic property of the HD molecule as is the optical spectrum of the molecule (*17*). The splitting amounts to 43 cycles per second. I am sure we have only begun to explore the domain of very weak interactions—the "audio spectrum" of molecules, if I may call it that.

This has been a long story and a complicated one, I'm afraid. We are dealing not merely with a new tool but with a new subject, a subject I have called simply nuclear magnetism. If you will think of the history of ordinary magnetism, the electronic kind, you will remember that it has been rich in difficult and provocative problems and full of surprises. Nuclear magnetism, so far as we have gone, is like that too.

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News and Notes

Scientists in the News

Charles B. Hitchcock has been appointed Director of the American Geographical Society. He has been Head of the Department of Hispanic American Research since 1938, and for the past three years has also served as Executive Secretary of the Society. Dr. Hitchcock succeeds **George H. T. Kimble,** who has resigned to direct the Twentieth Century Fund's Survey of Tropical Africa.

Herman W. Hoerlin, formerly head of the physics laboratory in the research department of the Ansco Corporation at Binghamton, N.Y., has been made a group leader in the Test Division of the Los Alamos Scientific Laboratory.

Herbert W. Johnson, leader of Federal-State soybean research in North Carolina and South Carolina, has been transferred to the U.S. Department of Agriculture's Plant Industry Station at Beltsville, Md. He will assist D. F. Beard, Head of the Division of Forage Crops and Diseases, in supervising the soybean improvement program. He will also take over much of the former work of **Martin G. Weiss,** who in February was made Director of Research in Field Crops for the Bureau of Plant Industry, Soils and Agricultural Engineering.

Three visiting professors from abroad will be on the staff of the College of Medicine of the State University of New York, Brooklyn, during 1953–54. **Francois Kleyntjens,** Adjunct Professor and Acting Chief of the Department of Neurology at Brussels University Hospital, will serve as Visiting Professor of Physiology; **Edward Solomons,** obstetrician and gynecologist of Steevens Hospital, Dublin, will be the joint guest of the college's Department of Obstetrics and Gynecology and of Maimonides Hospital; and **Brian MacMahon** of Birmingham, England, will be Visiting Lecturer in the Department of Environmental Medicine and Community Health.

I. M. Kolthoff, Chief of the Analytical Division of the University of Minnesota School of Chemistry, is the new president of the Analytical Chemistry Section of the International Union of Pure and Applied Chemistry. With his election, Dr. Kolthoff also automatically becomes a vice president of the Union.

Philip G. Koontz, Professor of Physics at the College of Wooster, Wooster, Ohio, is on leave of absence from his teaching post in order to work in the Weapons Division of the Los Alamos Scientific Laboratory.

George K. K. Link, Professor of Botany at the University of Chicago, has retired after 29 years of service. He holds a B.S. and Ph.D. from the University of Chicago, and an M.S. from the University of Nebraska. From 1917 to 1924 he served as a specialist in market pathology with the U.S. Department of Agriculture. A mountaineer, Dr. Link is president of the Lake O'Hara Trail Club, organized in 1948 at Yoho National Park, British Columbia. He made the third ascent of Mt. Stephen from Lake O'Hara in 1952.

At Chicago, Dr. Link developed a distinctive approach to the concept of disease and expanded plant

pathology into a broad science showing the unity of all organisms. With E. S. G. Barron of the Department of Medicine, he has collaborated on the aspects of metabolism in various pathological situations, albinism of corn, black heart of potato, crown-gall, and a plant wilt. Dr. Link plans to publish in book form a syllabus on general plant pathology, and he is also completing, in collaboration with Professor Einarson of the Department of Greek, the final translation of the oldest extant treatise on plant ecology, physiology, and pathology written by Theophrastus more than 2000 years ago.

Franklin C. McLean, Professor of Physiology at the University of Chicago, has retired after 33 years of service. Dr. McLean, who served as first director of the University of Chicago Clinics when it was founded in 1927, was Director of Toxicology for the United States Chemical Warfare Service during World War II. A lieutenant colonel, Dr. McLean received the Legion of Merit for his work at Edgewood Arsenal, where he was in charge of improving the effectiveness of gases, and for his work with the British-American coordination staff on the San José project in Panama in testing gas warfare equipment.

He was Director of the Peking Union Medical College from 1916 to 1920 during the building and organizing of the staff of the medical school and hospital, and Director of the University Clinics from 1927 to 1932.

An observer of the atom bomb tests at Eniwetok in 1948, Dr. McLean, is now Deputy Chairman of the Joint Panel on Medical Aspects of Atomic Warfare, Research and Development Board of the Department of Defense, and Director of the U.S. Air Force project at the University of Chicago. He will remain at the University to continue research on the physiology of the bone, a project now being conducted on a Josiah Macy, Jr. Foundation grant.

Harry A. Marmer, Assistant Chief, Division of Tides and Currents, U.S. Coast and Geodetic Survey, has retired after 46 years of service. Mr. Marmer was born in the Ukraine and came to this country at the age of four. He was graduated from Rutgers University in 1907 with a B.S. degree in engineering, and that year joined the staff of the Coast and Geodetic Survey, where he has spent his entire professional career. In 1931, Mr. Marmer received an M.S. degree from Rutgers.

During his years with the Survey, Mr. Marmer won international recognition as an expert on tides, currents, tidal datum planes, and related oceanographic subjects. In addition to his present title, he has also been serving as Chief Tidal Mathematician and Chief of the Section of Field Work. He is the author of two books, *The Tide* and *The Sea,* which are recognized as standard textbooks, and he has written a number of official Survey publications. Since his writings are authoritative in the field of oceanography, they have been used by the Supreme Court in cases involving riparian rights. Mr. Marmer has been responsible for the establishment of tide stations in the United States, South America, and the Pacific Islands. The two stations in which he takes particular pride are those located in the Straits of Magellan and at Guadalcanal.

He is the recipient of many awards and citations, the most notable being the Alexander Agassiz Medal, which was awarded him by the National Academy of Sciences for original contribution in the science of oceanography. He also received the 1949 Department of Commerce Gold Medal for exceptional service to the nation.

Henry J. Noebels, who for the past eight years has been in charge of the physical instrumental analytical research laboratory at the Heyden Chemical Company, Garfield, N.J., has been appointed head of the Applications Engineering Division of Beckman Instruments, Inc., Chicago.

Lester Scheel has been appointed Acting Director of the Biochemistry Department of Trudeau Sanatorium and Foundation. Dr. Scheel has been associated with Trudeau since 1949.

At the annual meeting of the New Jersey Society of Clinical Pathologists **Elmer L. Shaffer,** Director of the Division of Laboratories of the N.J. State Department of Health, received an award for "outstanding services."

Education

The Division of Organic and Fibrous Materials of the National Bureau of Standards is sponsoring a series of six lectures on the **Chemistry and Physics of High Polymers.** The second and third lectures will be given on Nov. 6th and 30th. The meetings are open to the general public and further information may be obtained from Dr. Leo Mandelkern, Rubber Section, National Bureau of Standards, Washington 25, D.C.

A new cooperative attack on the emotional difficulties and behavioral problems which beset many children today is being launched by the **Harvard Medical School,** the **Children's Hospital,** and the **Judge Baker Guidance Center.** It will cover the full range of childhood from infancy through adolescence.

The three institutions are bringing together their resources in a program of treatment, research, and teaching in the field of child guidance and psychiatry. The Judge Baker Guidance Center will continue all of its past activities as an independent service agency, but George E. Gardner, its Director, will head the new cooperative program. He will have the additional titles of Clinical Professor of Psychiatry at Harvard and Psychiatrist-in-Chief at the Children's Hospital.

Under the cooperative plan, doctors in training will have the opportunity to acquaint themselves with the major types of childhood disorders—the behavioral symptoms treated at the Judge Baker Center, and the relation of mental to physical health dealt with at the Children's Hospital.

The U.S. Atomic Energy Commission has issued a booklet entitled **"Laboratory Experiments with Radioisotopes for High School Science Demonstrations"** to assist high school science teachers in setting up experiments with radioisotopes.

Describing 20 experiments involving the use of radioisotopes, the booklet also explains how nuclear radiations are detected and measured. The purpose of the experiments is to bring to students a realization that rays are emitted by radioactive or "excited" atoms, that these rays can be detected and measured only with special instruments, and that they have important uses as research tools in biology, chemistry, earth science, and physics.

The booklet has been placed on sale (price, 25¢) by the Superintendent of Documents, U.S. Government Printing Office, Washington 25, D.C.

The New York Psychoanalytic Institute has organized a series of lectures and seminars for scholars in the social sciences and humanities. This program, given in The School of Applied Psychoanalysis, is an educational experiment designed to integrate the knowledge of psychoanalysis with other sciences.

Introductory courses on the theory of psychoanalysis are offered initially, while advanced courses deal with illustrations in allied fields such as sociology, political science, anthropology, art and literature, and religion. A catalog may be obtained from The New York Psychoanalytic Institute, 247 E. 82 St., New York 28, N.Y.

In connection with the award to him of the Isaac Ray Award for 1953 (New and Notes, July 24), Gregory Zilboorg, psychiatrist and Associate Clinical Professor at the New York Medical College and the New York State University Medical School, has commenced a series of six lectures at Yale University on the general topic **"The Psychology and Psychopathology of the Criminal Act and Punishment."** The first lecture will be delivered Oct. 14 and there will be five more on successive Wednesdays. Dr. Zilboorg's talks are being sponsored by the Yale Study Unit in Psychiatry and Law, a unique teaching and research group composed of faculty members of the Law School and the Department of Psychiatry.

The **School of Medicine at the University of Southern California** celebrated its twenty-fifth anniversary last month.

A $30,000 grant from the **W. K. Kellogg Foundation** of Battle Creek, Michigan, has been made to the **Woman's Medical College of Pennsylvania** "for the purpose of developing a program of teaching and research in Preventive Medicine." This grant will be paid in units of $10,000 a year, effective July 20, 1953. The Department is under the direction of Katharine R. Boucot, Professor of Preventive Medicine.

In August, ground was broken for the $115,000 Martha Tracy Preventive Medicine Wing, a two-story unit to house the Department which is being built onto the west side of the college's present Hospital.

René J. Dubos, member of the Rockefeller Institute for Medical Research, will give the 1953 **Warren Prize Lectures** of the Massachusetts General Hospital on the subject, "Biochemical Aspects of Infection." The lectures will be delivered in the Museum of Science, Boston, on Nov. 9, 11, 13, 17, and 19.

Grants and Fellowships

The **California Research Corporation,** San Francisco, has presented a $10,000 grant to **Yale University** to support fundamental research in chemistry. The grant will be used to support studies in the general field of polyelectrolytes and will be administered by Raymond M. Fuoss, Professor of Chemistry at Yale. James C. Nichol, Associate Professor of Chemistry at Willamette University in Salem, Ore., is the first recipient of a fellowship supported by the new grant.

The field of polyelectrolytes originated at Yale and represents a new field of chemical research that has many implications for medicine as well as industry. Some polyelectrolytes are being used as substitutes for blood plasma in transfusions. They are also the basis for a new soil conditioner which makes clay soil tillable and which prevents the effects of wind and rain erosion.

Establishment of a new $1000 chemistry prize, **The Kendall Company Award in Colloid Chemistry,** has been announced by the American Chemical Society. The purpose of the award is "to recognize and encourage outstanding contributions to the science of colloid chemistry in the United States and Canada." The prize will be conferred annually. A candidate must be a resident of the United States or Canada and must have made an outstanding contribution to the science of colloid chemistry. Special consideration will be given to independence of thought and originality.

The Future Scientists of America Foundation of the National Science Teachers Association has announced the third annual program of **Science Achievement Awards** sponsored by the American Society for Metals. Awards totaling $5,000 will be made to science students in grades seven through twelve. The 1954 "Book of Rules and Information" may be obtained from the Foundation at 1201 16th St., N.W., Washington 6, D.C.

Initial grants for 1953 totaling $1,944,151.64 were awarded to the nation's 79 medical schools in July by the **National Fund for Medical Education.** Approximately half was contributed by business corporations through the Fund's Committee of American Industry, and half by the medical profession through the American Medical Education Foundation.

Each school received $20 per undergraduate medical student, plus a lump sum: $15,000 for the 73 four-year schools and $7,500 for the six two-year basic medical sciences schools. Grants from the National Fund are unrestricted, but the money is used primarily to fill teaching vacancies, create new faculty posts, initiate

teaching experiments, and open new courses in areas of recent scientific advances. Since 1951, when the Fund made its first awards, a total of $4,764,152 has been given to the medical schools.

The Fund's major objective is to strengthen medical education in this country by mobilizing private support for the financially distressed medical schools. It is seeking $10,000,000 in additional annual income needed to meet the increased cost of training doctors. Unless this additional annual support is obtained, the medical schools face the prospect of: (1) lowering their standards, (2) reducing the number of graduates, or (3) becoming subsidized by the federal government.

The **New Mexico Academy of Science** has awarded the 1952 AAAS Research Grant to R. DeWitt Ivey of Albuquerque for his field investigations on mammals in Bernalillo County.

The recent establishment of the **William Volker Fund** extends the grants-in-aid program of the **American Medical Association's** Committee on Research of the Council on Pharmacy and Chemistry into the basic medical sciences. When first organized as the Therapeutic Trials Committee, and up to the present, its fundamental objectives were to stimulate progress in the control and treatment of disease through facilitating investigations to establish the usefulness of diagnostic, preventive, and therapeutic agents.

The William Volker Fund is not specifically restricted to grants in special fields such as heart disease, cancer, or hypertension. The Committee on Research feels that this is commendable, since the progress of medical research requires broad investigations in all fields of medical endeavor, including the basic sciences. This approach should furnish better understanding of the normal cell and organ functions than can be secured by research directed primarily to departures from the normal processes.

Grants from the fund will be made to individual applicants and will be limited to the range of $500 to $1,000. The funds may be applied to defray expenses attendant to research, with the exception of salaries, services, and travel. Applications may be secured by addressing Dr. E. M. K. Geiling, Chairman, Subcommittee on Grants-in-Aid, Committee on Research, Council on Pharmacy and Chemistry, American Medical Association.

In the Laboratories

The **Armour Research Foundation** of the Illinois Institute of Technology has signed a contract with the Republic of Uruguay to conduct a preliminary technological audit of the country. Three members of the Armour staff left recently for Montevideo. The project, financed entirely by Uruguayan capital, is expected to cover approximately six weeks in the field. The Armour Research Foundation has been a pioneer in conducting technological audits of other countries; it has completed such audits in Argentina, Mexico, El Salvador, and other Latin American nations.

Arthur D. Little, Inc., industrial research and engineering firm of Cambridge, Mass., is opening a new midwest liason office in Chicago.

The **Carbide Carbon and Chemicals Company** has won the **1953 Award for Chemical Engineering Achievement,** bestowed by *Chemical Engineering,* a publication of the McGraw-Hill Publishing Company. The Carbide Carbon and Chemicals Company was selected to receive the honor for being the first to succeed in the commercial production of chemicals directly from coal by a high-pressure hydrogenation process. It has taken 17 years of research and 20 million dollars to develop this process, which frees the chemical industry from dependence on the steel industry's coke ovens for important aromatic chemicals which form the basis for many plastics, synthetic rubber, dyes, and insecticides.

The **Du Pont Company** has announced the construction of a new $3,000,000 mine and plant to produce ilmenite, the raw material for titanium metal and pigments, near Lawtey, in north central Florida. The schedule calls for completing the installation and getting it into operation early in 1955. The new plant, to be known as the Highland plant, will be built and operated for Du Pont by the Humphreys Gold Corporation of Denver. Humphreys will also provide some of the major equipment.

This project is rather unusual in its mode of operation. The work is done by a dredge floating on a "traveling lake" which mines sand to extract ilmenite. At Du Pont's nearby Trail Ridge plant, and as it will be at the Highland plant, the traveling lake is about half a mile long and 500 feet wide, dug out of sandy soil. A dredge and separators pick up the sand in front, take out the black ore, and pour the sand back in again behind them. Thus the lake travels forward in the direction of the work.

The **Institute of Cytology,** under the directorship of Herbert E. Nieburgs, former Professor of Clinical Cytology of the Medical College of Georgia, has been established at Beth-El Hospital, Brooklyn. The Institute will emphasize the diagnosis of cancer in the early stages of development before the appearance of symptoms. Research studies will be conducted on the relationship of the endocrine glands to cancer of the female reproductive system.

Meetings and Elections

A forum on world health and the American people is scheduled for the opening day of the **American Public Health Association's 81st Annual Meeting** at the hotels Statler and New Yorker in New York City, Nov. 9–13. The forum will be sponsored by the National Citizens Committee for the World Health Organization, one of 40 related groups meeting con-

currently with the American Public Health Association. More than 5,000 delegates are expected to attend.

Questions scheduled for the forum are: Should the United States "go it alone" without the World Health Organization?; Will the promotion of world health inevitably create world over-population?; Can a United Nations agency force certain public health programs on the American people? A report on the state of the world's health by WHO representatives will be heard at a luncheon meeting on the opening day, a day which will be devoted largely to sessions of affiliated groups.

More than 400 speakers and discussants will participate in the Association's scientific sessions, workshops, and panel discussions. Among topics to be covered in scientific sessions are the status of current research in prevention of specific diseases, including poliomyelitis, trichinosis, tuberculosis, rabies, heart disease, and cancer; military public health problems in Korea; sex education in the schools; advances in the teaching of preventive medicine; developments in medical care, including research in medical economics and supply and distribution of physicians; home safety and accident prevention for infants and young children; dental public health, including advances in fluoridation of public water supplies; research on resistance to antibiotics, and studies of relationship between dietary intake and physical growth at various ages.

The first symposium sponsored by the **Commission on Geochemical Localization of the Elements of the International Union of Chemistry** was held at Zürich, Aug. 11–13, and was attended by 65 scientists from 18 countries. Thirty-five papers were presented. On Aug. 14–15 there was a field trip in the Eastern Gotthard.

The main theme of the meeting was the problem of organizing and making available geochemical data and of keeping scientists informed as to current research programs. Kalervo Rankama, University of Helsinki, outlined the need for compilations of geochemical data and problems connected therewith. The plans of the U. S. Geological Survey for revision of Clarke's *Data of Geochemistry* were outlined by Michael Fleischer and for revision of Washington's compilation of rock analyses by Marjorie Hooker; both revisions are now under way. Wolfgang Mueller of the Gmelin Institute described the work of the Institute and its information service in the field of geochemistry, and Paul Rosbaud discussed the plans of *Geochimica et Cosmochimica Acta* for the publication of geochemical papers.

A summary of current researches in European centers was presented by T. F. W. Barth, University of Oslo, and similar reports on activities in individual laboratories were given by Earl Ingerson, U. S. Geological Survey; R. A. Chalmers, Durham University, England; W. S. Pitcher, Imperial College, London; F. E. Wickman, Stockholm; G. Millot, University of Nancy; H. Haberlandt, University of Vienna; and R. Fairbridge, University of Western Australia.

Several papers dealt with radioactivity. E. E. Picciotto described a new emulsion technique for the determination of ionium and thorium and gave results obtained on cores from the Atlantic bottom. Friedrich Hecht, University of Vienna, gave new determinations of U and Ra content of the same cores, collected by the Swedish Deep-Sea Expedition of 1947–48. C. F. Davidson, Geological Survey of Great Britain, spoke on the "Association of Uranium with Mineral Hydrocarbons"; W. Noddack, Bamberg, on "Energy Relations in Metamict Minerals"; F. G. Houtermans, University of Berne, on the "Isotopic Abundance of Common Lead"; and Stanko Miholic, Zagreb University, on the "Radioactivity of Waters Issuing from Sediments."

Other papers were by S. I. Tomkeieff, Durham University, on "The Periodic System and Petrochemistry"; H. C. Urey, University of Chicago, "Composition and Origin of Meteorites"; Hans Schwander, University of Basle, "Oxygen Isotope Ratios in Silicates"; M. Louis, Rueil-Malmaison, "Geochemistry of Petroleum"; E. Schroll, Vienna, "Minor Elements in Alpine Ores"; and several papers dealing with minor elements in natural waters and the oceans.

New officers of the Commission were elected: pres., Michael Fleischer, Washington; v. pres., T. F. W. Barth, Oslo; sec., Kalervo Rankama, Helsinki. H. C. Urey, Chicago, was elected a member of the Commission, and Conrad Burri, Zürich, observer.

David E. Lilienthal, former Cairman of the U.S. Atomic Energy Commission, will be the principal speaker at a dinner to be held by the American Chemical Society's Philadelphia Section on Nov. 30 on the occasion of the opening of the 24th **Exposition of Chemical Industries.** The exposition is held every two years to acquaint the chemical process industries with the latest developments in new chemicals, equipment, instruments, and materials of construction.

The exposition has been staged in Grand Central Palace, N.Y., for many years, but has been moved to Philadelphia's Commercial Museum and Convention Hall this year because the Palace has been leased to the Bureau of Internal Revenue. During the Philadelphia exposition, Nov. 30 through Dec. 5, more than 500 exhibitors will occupy four acres for displays and demonstrations of new products and equipment.

The annual meeting of the **Society of Rheology** will be held in the Hotel New Yorker on Oct. 29–31. Twenty-five papers will cover such topics as: the extrusion of Teflon, fatigue of glass, cut-growth in rubber, relaxation of butadiene-styrene, GR-S plasticizers, plastometry of polyethylene, interpretation of dynamic modulus, shear rate of polymer degradation, flow change during metal deformation, influence of thermal stresses on flow, molecular theory of polymer flow, plastic properties and crystalline lattice imperfections, growth of fractures in metal, fatigue in

polymers, a rheological equation of state and treatment of non-Newtonian data.

The **Society for the Study of Social Problems** has elected the following officers for 1953–54: pres., Alfred McClung Lee, Brooklyn College; pres.-elect, Herbert Blumer, University of California at Berkeley; v. pres., Jessie Bernard, Pennsylvania State College; sec., Bryon Lester Fox, Syracuse University; treas., Richard A. Schermerhorn.

Miscellaneous

In September **Knut and Bodil Schmidt-Nielsen,** husband-and-wife research scientists of Duke University, sailed for Africa where they will spend a year in the Sahara region studying the camel. Accompanying them as co-workers are T. Richard Houpt of the University of Pennsylvania and S. A. Jarnum of the University of Copenhagen. The exhibition is supported by funds from the John Simon Guggenheim Memorial Foundation, UNESCO, and the U.S. Government.

From Algiers on the Mediterranean coast, the group will drive 500 miles inland to the village of Beni Abbes, which will be headquarters for the research program. Transportation will be provided by a heavy-duty truck painted aluminum to withstand the desert sun. It will carry a great variety of equipment ranging from an electric generator to hypodermic needles, and from scales for weighing a camel to chemicals in plastic bottles. Preparations for the trip have been underway since 1948, and a thorough system of card-indexing is required to keep every detail in order.

In the Sahara the temperature rises as high as 140° F., and years may pass without rainfall. There is almost no scientific knowledge of how the camel can live in a region that would mean death to most other animals. Desert animals must be able to withstand both heat and water shortage. Small creatures can keep cool by burrowing underground, but the camel cannot do this, and probably has to use water for heat regulation as well as for its other body needs. By studying the camel in its native surroundings, the researchers hope to answer such questions as the following:

How great a water loss from its blood and tissues can the camel stand? Other animals can tolerate a 20% loss at most.

Does the camel have any unknown way of storing water? It has been claimed that certain compartments in the wall of its stomach serve as water storage tanks, but their use has never been scientifically determined.

How much does sweating help a camel keep cool? Some observers write that camels perspire only over a small area on the back of the neck.

Dr. Schmidt-Nielsen believes that his project will be valuable "because the camel is of great economic importance in technologically underdeveloped arid zones of the Old World. Also, more knowledge of desert animals may lead to a better understanding of human beings' physical reactions to hot climates."

New journals received: ***Archivos Médicos de Cuba.*** Organo Oficial de la Institución Nacional de Examen y Diagnóstico. Vol. 4, No. 3, May 1953. Editor, C. Bilbao. Published by the Institution, Havana, Cuba. $10.00 per year; $2.00 per issue. Bi-monthly. (In Spanish.) . . . ***The Asa Gray Bulletin.*** New Series, Vol. 1, No. 4, Oct. 1952. Editors, Harley H. Bartlett and Rogers McVaugh. The Gray Memorial Botanical Association, Ann Arbor, Mich. $3.25 for Vol. 1 ($1.00 for Vol. 1, No. 1, separately, other numbers 75¢ each); $3.00 for Vol. 2. Quarterly. . . . ***Australian Journal of Biological Sciences.*** Vol. 6, No. 2, May 1953. Formerly published as *Australian Journal of Scientific Research, Series B: Biological Sciences.* Editor, N. S. Noble. C.S.I.R.O., Melbourne, Australia. 30s per year. Quarterly. . . . ***Australian Journal of Botany.*** Vol. 1, No. 2, June 1953. Editor, N. S. Noble. Commonwealth Scientific and Industrial Research Organization, Melbourne, Australia. Issued as material becomes available. 7s 6d per issue. . . . ***Journal of Embryology and Experimental Morphology.*** Vol. 1, Pt. 1, March 1953. Editor, Michael Abercrombie. Oxford Univ. Press, Amen House, London, E.C.4. (For the Company of Biologists, Ltd.) £4 4s per year; 25s per issue. Quarterly (English, French, and German). . . . ***Journal of the Indian Society of Soil Science.*** Vol. 1, No. 1, June 1953. Indian Society of Soil Science, Indian Agricultural Research Institute, New Delhi-12, India. Rs. 8/ per year, foreign. Semiannual. . . . ***Nagoya Medical Journal.*** Vol. 1, No. 1, Jan. 1953. Nagoya City University Medical School, Mizuho-Ward, Nagoya, Japan. Quarterly. (In English.) . . . ***Norelco Reporter.*** Vol. 1, No. 1, Sept. 1953. Editor, George A. Garnes. North American Philips Co., Mount Vernon, N. Y. Bi-monthly. . . . ***Records of Oceanographic Works in Japan.*** Vol. 1, No. 1, New Series, March 1953. Continuation of the *Records of Oceanographic Works in Japan,* Vol. 12, No. 2. Editor, Masayoshi Ishibashi. Compiled by Special Committee on Marine Resources in the UNESCO Committee of Science Council of Japan. Japanese National Commission for UNESCO, Tokyo, Japan. (In English.) . . . ***Research Film.*** Bulletin of the Research Film Committee, International Scientific Film Association. No. 2, April 1953. Editors, G. Wolf and J. Dragesco. Published by the Association, Gottingen, Germany. . . . ***Revista de Biología Tropical.*** Vol. 1, No. 1, July 1953. University of Costa Rica, San José, Costa Rica. $2.00 per year; $1.25 per issue. Semiannually. (In Spanish.) . . . ***The Science Reports of the Saitama University.*** Series A (Mathematics, Physics and Chemistry). Vol. 1, No. 2, 1953. Saitama University, Urawa, Japan. (In English.) . . . ***Vox Sanguinis.*** Vol. 3, No. 1–2, March 1953. Central Laboratory of the Netherlands Red Cross Blood Transfusion Service, Binnengasthuis, Amsterdam-C, Netherlands. Fl. 5.50 per year. Bi-monthly. (In English.)