much less clear than those of the nucleus itself and we differ among ourselves in our deduction of their nature. A great deal more work is clearly necessary to discover in detail these remaining features of the vitamin B_{12} structure, but from our present experience we now have little doubt that a complete solution of the crystal structure by X-ray analysis is possible.

We are very grateful for gifts of material, and for invaluable conversations, to Dr. Lester Smith, of Glaxo Laboratories, Ltd., and to Sir Alexander Todd and his colleagues. One of us (J. W.) would like similarly to acknowledge a gift from the Merck Laboratories. We have had considerable assistance in our calculations from Miss Ruth Cox, Mrs. U. Ledwith, Mrs. M. Mackay and Mrs. I. Robertson, using machines supplied to us by the British Tabulating Machines, Ltd. Other computing has been carried out for us by the Scientific Computing Service, the National Physical Laboratory, and by XRAC, through the kindness of Prof. Pepinsky. Our researches in Oxford have been very generously supported by the Nuffield Foundation and by the Rockefeller Foundation. We also gratefully acknowledge the award of a fellowship by the International Federation of University Women (to C. B.) and of a grant from the Department of Scientific and Industrial Research (J. P.).

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OBITUARIES

Dr. C. G. L. Wolf

DR. C. G. L. WOLF, honorary consulting biochemist to the United Cambridge Hospitals, died at his home in Cambridge on November 9 at the age of eighty-two.

Charles George Lewis Wolf was born at Niagara, and graduated M.D., C.M. at McGill University. After a period of study in Cambridge and Würzburg, he joined the teaching staff of McGill University as a demonstrator in chemistry, and in 1899 was appointed head of the Department of Physiological Chemistry in Cornell University Medical College. Dr. Wolf relinquished this appointment in 1911, and for a short period worked in the laboratory of the late Sir Frederick Gowland Hopkins in Cambridge.

During the First World War Dr. Wolf held the rank of captain in the R.A.M.C., and in 1919 he became assistant director of the Institute for the Study of Animal Nutrition in the Department of Agriculture at Cambridge. In 1920 he was appointed to a lectureship in bacteriology in the same Department. He left the Department of Agriculture in 1920, and in 1921 became honorary biochemist to Addenbrooke's Hospital, Cambridge. In the same year he was awarded the degree of Ph.D. for a thesis upon the estimation of lactic acid.

Dr. Wolf's work was characterized by a meticulous regard for accuracy in laboratory technique and by a deep knowledge of his subject acquired by extensive reading in the original literature. He carried out research in widely differing fields. From Cornell University came a detailed study of cystinuria, while in 1917 he published a report to the Medical Research Committee (now Council) on the biochemistry of pathogenic anaerobes. This latter work was initiated at a base hygiene laboratory in Boulogne and continued in the Institute for the Study of Animal Nutrition in Cambridge. In 1921 Dr. Wolf published a paper upon the maintenance of the motility of mammalian spermatozoa during storage, and in 1926, in collaboration with Sir Eric Rideal, he published a study of the Wassermann reaction. About this date Dr. Wolf became interested in various serological methods which had been proposed for the detection of malignant tumours in man, and most of his original work from this time until his retirement lay in this field.

A man of strong personality and forthright in expression of his views, Dr. Wolf numbered many eminent colleagues among his friends. He had an exceptionally keen sense of responsibility towards all who worked under him and was always ready with helpful advice upon their problems. Their subsequent careers were a subject of deep and kindly interest to him, and their appreciation was shown by friendships that lasted until the end of his life.

In 1910 Dr. Wolf married Josephine Rebecca Tallerman, who died in 1949. N. R. LAWRIE

M. Albert Demolon

IN the death of Albert Demolon on October 23, France has lost her most distinguished soil scientist. The death of Mme. Demolon in a road accident in 1950 greatly saddened his last days. He will be affectionately remembered by the many hundreds of soil scientists who had the good fortune to know him as a dynamic personality, physically small but mentally and spiritually a giant.

When only twenty-eight years old, he became director of the Station Agronomique at Laon, and during the next eighteen years he threw himself with great energy into the study of the *limons* soils of northern France. His researches were remarkable for the width of their scope. He was just as competent in microbiology as in physics, and was keenly interested in practical agriculture while seeking for fundamental scientific truth. In the middle of this period he suffered the anguish of seeing his laboratory destroyed by bombardment.

In 1927 he was appointed inspector-general of the stations and laboratories of the French Ministry of Agriculture, a post which he retained until his retirement in 1946. Until 1940 he was also director of the Centre National de Recherches Agronomiques at Versailles. In this position he gathered around him an enthusiastic group of research workers, and was their constant source of inspiration. This period closed with the second destruction of his books and records by enemy action, in 1940, and he sustained

further loss when the Centre was bombed in 1944. The fruits of this period are to be found on our shelves in such stimulating books as "Dynamique du sol", "Croissance des végétaux", "Guide pour l'étude expérimentale du sol", "L'évolution scientifique de l'agriculture" and "Génétique des sols".

In all his work we find Demolon rejecting the empirical approach in favour of a sincere attempt to understand the processes at work. He was convinced that this is the surest way to obtain results of practical value in agriculture.

His election to the Paris Academy of Sciences in 1946 marked the beginning of a final period in which he rendered valuable service as adviser to the International Superphosphate Manufacturers' Association, a post which brought him into close contact with many industrial organizations serving agriculture.

R. K. Schofield

NEWS and VIEWS

Carnegie Institution of Washington : Dr. C. P. Haskins

Dr. Caryl P. Haskins, president and director of research of Haskins Laboratories, New York City, has been elected president of the Carnegie Institution of Washington in succession to Dr. Vannevar Bush, who will retire on January 1, 1956. Dr. Haskins was born in Schenectady, New York, in 1908, and graduated from Yale University in 1930. After four years in the Research Laboratory of the General Electric Company and graduate study at Harvard University, where he received a Ph.D. in 1935, Dr. Haskins established the Haskins Laboratories, a non-profit scientific and educational foundation. This foundation has for eighteen years devoted itself mainly to basic scientific research and research training in selected pioneer fields. With a small staff supported by private funds and grants from various foundations, its original activities were confined mainly to the fields of biochemistry and biophysics ; but in recent years it has moved into the field of psychoacoustics, which involves a new approach to some of the fundamental aspects of speech. One of Dr. Haskins's books, "Of Societies and Men" (1950), is particularly interesting in that it sets forth in a novel way significant trends in the formation, growth and duration of societies, drawing information from evolution, palæontology, genetics and biochemistry, and tracing parallels in the social evolution of many different kinds of organisms. Among its conclusions is that over-regimentation and over-specialization destroy in time the self-reliance and flexibility of individuals in the society, and the society then often fails to adjust itself to changes in environment. During the Second World War, Dr. Haskins served with the National Defense Research Committee and the Office of Scientific Research and Development, and since the War has acted as a consultant to the Departments of Defense and State. He has been a research professor in biophysics at Union College, Schenectady, since 1937, and president of the National Photocolor Corporation of New York City since 1938. In 1948 he was awarded the Certificate of Merit and in the same year received from Great Britain the King's Medal for Service in the Cause of Freedom.

Atomic Energy Authority : Appointments

Mr. Eric H. Underwood has been appointed director of public relations to the United Kingdom Atomic Energy Authority. He will take up his duties early in the New Year. He goes to the Authority from the Central Office of Information, where he was director of the Photographs Division and, earlier, chief editor of overseas magazines. Mr. Underwood, who is forty-one years of age, was educated at Dulwich College. He was a provincial newspaperman until 1940, when he joined the Royal Air Force. At the end of hostilities in Europe he was seconded to the Control Commission for Germany as a squadron-leader press officer until his demobilization at the end of 1945. In January 1946 he was appointed deputy director of public relations at the newly formed Control Office for Germany and Austria, and transferred to the Foreign Office in the following year, going to the Central Office of Information in 1949. Mr. Stanley White, who has been acting as press officer on secondment from the Ministry of Supply, has now been appointed to that post with the Authority. The Authority's Press Office will move from Bedford Chambers to St. Giles Court, St. Giles High Street, London, W.C.2, early in 1955.

Harwell Isotope School

The Harwell Isotope School, which since it was founded in 1951 has had 329 students from twenty-nine different countries, is now preparing its programme for the forthcoming year. Training is given at this School in the applications of radioactive materials in research and industry and in the techniques of producing, measuring and handling such materials. Countries besides the United Kingdom from which students have already been trained are Australia, South Africa, Argentine, Austria, Belgium, Brazil, Chile, Denmark, Egypt, Finland, France, Germany, Greece, Holland, India, Ireland, Israel, Italy, Lebanon, Norway, Pakistan, Portugal, Spain, Sweden, Switzerland, Turkey, U.S.A. and Yugoslavia. The courses, which last for four weeks, include both lectures and practical work in the laboratory. Students should be graduates of a university. The courses for early 1955 are already fully booked, but there are at present vacancies on Course 27 (April 25–May 20) and Course 28 (June 27–July 22). Further information can be obtained on application to : The Isotope School, A.E.R.E., Harwell, Berks.

International Tin Research Council and Tin Research Institute : Appointments

Following the retirement at the end of this year of Mr. John Ireland, Dr. Ernest S. Hedges will become director of the International Tin Research Council and director of the Tin Research Institute. In addition, Dr. W. E. Hoare and Mr. W. R. Lewis have been appointed assistant directors. Dr. Hedges, who was educated at the Universities of Manchester and London, was at one time Darbishire Fellow of the University of Manchester, and later lecturer in chemistry in the University of London. He was appointed to the staff of the Tin Research Institute in 1932 and has been director of research since 1939. He is the author of several books on chemistry and metallurgy, and of more than a hundred research