sequent scientific work was concerned mainly with two fields, the physiology and pharmacology of the kidney and of smooth muscle. His chief interest lay in the physical factors controlling the activities of the kidney and he succeeded in establishing and supporting experimentally a series of remarkably simple relations between arterial, venous, ureteric and glomerular pressures from which the capillary glomerular pressure of the mammalian kidney could be calculated. He also worked on the mode of action of diuretics, and during the War he was engaged in a study of the renal damage which followed crush injury in the limbs. Much of his renal work is summarized in a Harvey Lecture given in 1951. Winton's studies on smooth muscle reveal another aspect of his intense interest in the physical aspects of biological processes. They represent one of the earliest systematic studies of 'tonus' and contractility in invertebrate and smooth muscle. During the War, Winton was the only head of a department left in the Medical Faculty of University College and acted as dean throughout. The success of the evacuation of the Faculty to Leatherhead was in great measure due to his personality and drive. He has published several books, among which is the widely used "Text-book of Physiology", by Winton and Bayliss. Winton is a man of varied interests, a connoisseur of wine and a 'cellist of well above average amateur status. He has been throughout, together with his wife, the violinist, Bessie Rawlins, the main inspirer and one of the principal performers of the Chamber Music Club at University College. He has taken a major part in establishing the Student Health Service in the College.

Prof. H. O. Schild

H. O. Schild, who will succeed Prof. Winton, was born in Fiume. He studied medicine in Munich and began his career in pharmacology in Straub's laboratory. In 1932 he went to London to work with Sir Henry Dale at the National Institute for Medical Research. Later, he worked at the University of Edinburgh with I. de Burgh Daly and the late A. J. Clark. In 1937 he went to University College, London, to join Gaddum, with whom he had worked when he first came to England. He was appointed reader in 1947. Working with Gaddum, Schild found that adrenaline in high dilution, in contrast to noradrenaline, gave a strong green fluorescence in alkaline solution. This reaction, modified in various ways, is still the most sensitive physical method for the assay of adrenaline. Schild was the first to infer the presence in extracts of the suprarenal medulla of a second pressor substance, which we now know to be noradrenaline. He developed a method of demonstrating release of histamine in anaphylaxis by estimating the histamine diffusing out of small tissue particles suspended in Ringer solution on the addition of antigen. With this simple and ingenious method he showed with Hawkins and others for the first time that histamine is also released from lungs of asthmatic patients by the specific allergens. In collaboration with Mongar, he became interested in the intracellular reactions with lead to release of histamine. Schild observed that the anaphylactic and allergic contractions of smooth muscles cannot be fully accounted for by the release of histamine, since they occurred also in muscles rendered insensitive to it. We also owe to him the knowledge that strychnine and strychnine methiodide have the property of releasing histamine, one of the earliest demonstrations of histamine liberators; also the finding that inhibitors of diamine oxidase potentiate histamine just as anticholinesterases potentiate acetylcholine.

Pharmacologists value most perhaps his contributions to bioassay. He introduced statistically controlled methods for the assay of substances on isolated tissue preparations, whereby it became possible not only to obtain more accurate results but also to estimate the limit of error in each assay. They are used, for example, for the B.P. assay of oxytocin. He introduced a method for quantitative measurement of the activity of oxytocic drugs on the post-partum uterus in women. In order to ensure greater accuracy when assaying substances on smooth muscles, he designed an automatic method which is widely used. His approach to the study of drug antagonism has been particularly fruitful. It is the pAx method by which drug antagonism can be expressed quantitatively and agonists classified by means of antagonists. Drugs which act on the same receptors give the same pAx value with antagonists. Recently, he made the intriguing observation that drugs contract the fully depolarized smooth muscle, thereby excluding membrane depolarization as the only cause of contraction.

Meteorological Department of India :

Shri S. Basu

Shri Basu retired from the Indian Meteorological Service on February 23 after thirty-two years of service in that Department. He was born in the United Provinces on October 23, 1903, where he spent his early years and had a brilliant educational career. He completed his university career at Allahabad under the guidance of the late Prof. Meghnad Saha, whose personality profoundly influenced him as a young student. After completing his post-graduation in physics, Shri Basu entered the Meteorological Department of India in 1927, where he served until his retirement last month. During the period he was director-general of observatories, the Meteorological Department made notable advances in many directions. Apart from his activities in meteorological spheres, he actively participated in some of the other scientific organizations in India; he is a Fellow of the National Institute of Sciences in India and has been the secretary of it during the past four years. He is also a Fellow of the National Academy of Sciences, Indian Physical Society and a member of the Aeronautical Society. He is also the president of the Association of Indian Geographers. He was the founder-president of the Indian Meteorological Society and is now one of the vice-presidents.

In 1951 he was elected vice-president of the Commission for Climatology of the World Meteorological Organization. As representative of India, he led the Indian delegation at the meeting of the World Meteorological Organization in 1955 and 1959 at Geneva. He was a member of the Executive Committee of the World Meteorological Organization during 1954–59. As president of the Regional Association II of the World Meteorological Organization for Asia (1954–59), Shri Basu did a great deal of preliminary work the influence of which will serve to guide the affairs of the Association for many years to come. He has also been India's member in the International Civil Aviation Organization and of the Special Committee of the International Union of Geodesy and Geophysics for the International Geophysical Year.

Shri P. R. Krishna Rao

Shri P. R. Krishna Rao succeeds Shri S. Basu as the director general of observatories, Government of India. He has had long experience of work in the department, having entered the service thirty-three years ago. He has had experience of international meteorological conferences since 1946, when he attended the first International Meteorological Organization Conference of Directors held in London after the Second World War. He recently led the Indian delegation to the joint session of the Meteorological Division of the International Civil Aviation Organization and the Commission for Aeronautical Meteorology of the World Meteorological Organization held in Montreal, and later paid short visits to the Canadian and United States Meteorological Services at Toronto and Washington.

Botany at Belfast : Prof. D. J. Carr

Dr. D. J. Carr has been appointed professor of botany in the Queen's University of Belfast in succession to Prof. J. Heslop Harrison, who has been appointed professor of botany in the University of Birmingham (*Nature*, 173, 150 ; 1954). Prof. Carr was educated at the University of Manchester after war service with the Royal Air Force. In 1949 he became an assistant lecturer at Manchester, and after a year at the Max Planck Institute at Tübingen, working in association with Dr. G. Melchers, he was appointed a senior lecturer in the University of Melbourne. His promotion to a readership at Melbourne followed in 1959. While at Manchester and Tübingen, Carr was engaged in work on developmental physiology, especially in relation to the photoperiodic responses of flowering plants. Among his contributions in the field of photoperiodism was a demonstration, using grafting techniques, that leaves cannot be photoperiodically induced unless they are in organic connexion with a shoot apex, a result interpreted as favouring Gregory's hypothesis of photoperiodic induction, according to which there can be no accumulation of a 'flowering hormone' in leaf tissues. In Australia, Carr's interests have ranged widely, penetrating into the fields of ecology and taxonomy. He has added to the Australian bryophyte flora a remarkable member of the Marchantiales, *Monocarpus sphaerocarpus* D. J. Carr, a plant of saline flats in north-western Victoria. In association with his wife, Dr. S. G. M. Carr, he has recently begun a major study of the developmental morphology of the inflorescence and flowers of the important genus *Eucalyptus*.

Commonwealth Assistance in Training Teachers

In a written answer in the House of Commons on February 24, the Secretary of State for Commonwealth Relations, Mr. C. J. M. Alport, said that good progress was being made in carrying out the proposals for assistance in training teachers put forward by the United Kingdom at the Commonwealth Education Conference. By the beginning of the next academic year it was expected that more than four hundred additional Commonwealth students would be coming to the United Kingdom to take courses in teacher training institutions with bursaries provided by the United Kingdom Government covering their tuition fees and full maintenance. This was more than half the existing total of Commonwealth teachers already receiving training in Britain. Places would be available for these students in a wide variety of training courses at institutions throughout the United Kingdom, and arrangements for their reception and welfare would be made by the British Council.

Mathematics and Science Teachers in Great Britain

In a written reply to a question in the House of Commons on February 25 regarding mathematics and science teachers, Sir David Eccles said that in 1959 there were 5,100 mathematics and 7,700 science graduates teaching senior pupils in maintained schools, as well as 3,250 non-graduate specialists in these subjects in schools with courses leading to the General Certificate of Education at Ordinary level. Inquiry in 1958 revealed 244 vacancies in these schools for mathematics teachers and 261 for science teachers. Assuming an annual net increase of 500 mathematics and science graduates, the shortage of these teachers on 1959 staffing standards would be 500 in 1961, 750 in 1962, 900 in 1963 and 350 in 1964. In 1965, 250 would be available to improve on 1959 standards. The actual shortage would depend on the results of present measures to increase the number of graduates and the output of specialists from training colleges.

Laboratory Accommodation in British Schools

In reply to a question in the House of Commons on February 11, the Minister of Education, Sir David Eccles, said that about £5 million would be spent in the 1960–61 and 1961–62 major building programmes to improve laboratory accommodation in existing schools ; in addition, new schools had the full range of science facilities. He said he regarded this provision as one of the most important elements in the building programme, and in the maintained schools we were building, and would continue to build, every year at a higher rate than ever was spent on the public schools.

The Library Service in Great Britain

Replying in the House of Commons on February 11 to a question regarding the introduction of legislation to implement the recommendations of the Roberts Committee on the Public Library Service, the Minister of Education said that the Government accepted the need for legislation in this field, and he hoped shortly to begin discussions with associations of local authorities on his proposals. He thought it wise to obtain the views of local authorities before the subject was discussed in the House, and agreed that it was necessary to take into account the view that no good local authority that is running a virile library service should be deprived by its size of the right of continuing to do so. Sir David Eccles undertook to bring into his discussions the Smaller Library Group of the Library Association. He indicated that his proposals were more in the sense of retaining the power, authority and responsibility of smaller local authorities, and not transferring all these responsibilities to county councils, and that the library service essentially should be decided by local authorities and not subject to national standards other than the proposals of the report. He also agreed that account must be taken of the possibility of changes in the structure of local government resulting from the recommendations of the Commissions now operating before making any alteration in the library service and that the problem was highly controversial.