

southern Europe), the summer days seem too long for some varieties which develop a mass of stolons but few tubers before the autumn. In the middle of February, about five weeks before the autumn equinox, one variety (No. 167) was apparently without tubers at all, although the plants had obviously been flowering a long time; to get specimens, it was necessary to remove an old sett and re-plant it in Pretoria, where tubers were rapidly formed in winter. Another variety, grown at the Quthing Experiment Station, was also without tubers at that time, although the plants were months old and had a great bulk of stolons; two plants were marked, and from them the agricultural and livestock officer was able to send about 6 lb. of tubers, all of which must have developed before frost came at the end of April. Several other varieties were not quite so late, but nevertheless had only small immature tubers at the end of the long stolons at the middle of February. Three of them—Nos. 148, 158 and 164—were grown in Pretoria (latitude 26° S.) during winter, with non-luminous heaters to protect them against light frost. They grew without long stolons and yielded respectively 2.5, 5 and 6 times as much as when the days were lengthened to 18 hours with electric light.

The Basutoland potatoes show that a short-day reaction existed in the domestic potato down into the nineteenth century. This reaction may still persist to the present day in European maincrop or late varieties. Tincker⁹ found it in the variety King Edward; and experiments in Pretoria, in which normal winter days were compared with days lengthened to eighteen hours by artificial light, showed that Up-to-Date and Kerr's Pink yielded slightly better when grown to maturity under the short-day conditions, though they were not far off day-neutral and showed nothing of that great delay in forming tubers in long days which is characteristic of many Andean and Basutoland varieties. These three varieties seem to be the only three European maincrop varieties, as distinct from earlier varieties, which have been tested, and there is no reason for believing they are atypical.

The Chilean varieties are generally regarded as having a long-day reaction, and the evidence of photoperiodism, far from supporting the view that the European potatoes came from Chile, is strongly against it. This position will not be altered even if, as seems likely, further work shows that late-maturing varieties from Chile have a nearly day-neutral rather than a long-day reaction.

A point of nomenclature remains. The name *Solanum tuberosum* was given to the European potato by Bauhin in 1596 and retained by Linnæus. Recently Juzepczuk and Bukasov grouped the Andean tetraploid varieties in a new species, *S. andigenum*. Hawkes³, although supporting Salaman's theory that the European potato came from the Andes, kept the name *S. andigenum* on grounds of convenience. But since *S. andigenum* was separated from *S. tuberosum* largely because the Andean potatoes have a short-day reaction and since, on the evidence given here, the European varieties known to Bauhin and many of those known to Linnæus must also have had this reaction, this seems to be carrying convenience too far. No doubt keeping the name *S. andigenum* helped Hawkes to make his account of the Imperial Agricultural Bureaux potato collecting expeditions as lucid as it is, but those of us with no arduous task of compilation might well use the name

S. tuberosum, whether it be for Peruvian varieties or Polish, Andean varieties or European, and leave it at that.

- ¹ Bukasov, S. M., Suppl. 58 Bull. Appl. Bot. Leningrad, pp. 192 (1933), quoted by Salaman, Hawkes and others.
- ² Salaman, R. N., *J. Roy. Hort. Soc.*, 62, 61, 112, 153, 253 (1937).
- ³ Hawkes, J. G., "Potato Collecting Expeditions in Mexico and South America". Imp. Bur. of Plant Breeding and Genetics, 142 (1944).
- ⁴ Clusius, C., "Rariorum plantarum Historia" (Antwerp, 1601).
- ⁵ Quoted by Hackbarth, *J. Züchter*, 7, 95 (1935).
- ⁶ Salaman, R. N., *New Biol.*, 1, 9 (1945).
- ⁷ Casalis, E., "My Life in Basutoland". English trans. by Brierley. Religious Tract Soc. (London, 1889).
- ⁸ For example, see Loudon, J. C., "Encyclopædia of Gardening", p. 829 (London, 1835).
- ⁹ Tincker, M. A. H., *Ann. Bot.*, 39, 721 (1925).

OBITUARIES

Prof. A. E. Dixon

AN Act of Parliament to endow new "Colleges for the Advancement of Learning in Ireland" was passed in 1845. In a few years, university colleges were established at Belfast, Cork and Galway, and in 1849 the first professor of chemistry of the Queen's University of Ireland at Cork, Dr. John Blyth, was appointed. He was followed in 1873 by Prof. Maxwell Simpson, and in October 1891 by Dr. A. E. Dixon. A new charter in 1908 changed the status of the College to that of a constituent college of the National University of Ireland, and Dixon retained his professorship. In 1925, after thirty-three years service, he became emeritus professor, a title which he retained until his death on March 3, 1946. A period of practically a century is covered by these three chemists.

Augustus Dixon was born in Belfast in 1860, the eldest son of Wakefield H. Dixon. He received his early education at the Royal Belfast Academical Institute and went to Trinity College, Dublin, in his twentieth year. In 1882 he entered for the honours course in experimental science and qualified in 1885 with a T.C.D. Senior Moderatorship and a gold medal in experimental science. At this period there was an active chemical school in Trinity directed by Prof. Emerson Reynolds; Dixon soon came under its influence and decided to make chemistry his profession. On the advice of Reynolds he followed the procedure very prevalent at this period and entered for a medical degree before specializing in chemistry. He obtained the Ekenhead Scholarship in Experimental Science and also a medical scholarship. During his medical course he kept in close touch with chemical research. Immediately after obtaining his M.D. degree, he went to the University of Berlin for a year and received a thorough training under Prof. A. W. Hofmann. In 1887 he became assistant lecturer in Trinity College, Dublin, and in the following year was appointed professor of chemistry in Queen's College, Galway, and served there until his transfer to Cork in 1891. It is of interest to note that he had direct association with four chemical schools in Ireland: Belfast, Dublin, Galway and Cork.

Dixon's first research, published in 1888 in the *Transactions of the Chemical Society*, was on the action of the isothiocyanates on the aldehyde ammonias. For a period of more than thirty-five years he investigated the chemistry of thiourea and related sulphur compounds. His record of some fifty

papers in the *Transactions and Proceedings of the Chemical Society*, mostly in his name alone, shows a fine, comprehensive record of systematic and accurate work on an important branch of organic chemistry—a branch now becoming increasingly important in connexion with the chemistry of plastics and drugs.

On a few occasions, Dixon, to confirm certain theories of his, had recourse to physico-chemical methods. He was an expert at mechanical operations and a first-rate glass manipulator. Further, he collaborated with Prof. Hartog on the chemical aspect of certain biological problems. In these activities also he was a master of his subject. Apart from his research ability, he was an excellent and stimulating lecturer; he followed the Hofmann tradition of showing many elaborate experiments in his undergraduate classes. He also took a keen interest in the erection of new chemical laboratories in University College, Cork, and was responsible for many novel ideas in their design and equipment.

Prof. Dixon was of a retiring disposition, and only his intimate friends were aware of his very active scientific life. He served for five years on the Council of the Chemical Society, London. He was also a member of a special research committee of the Royal Society. His hobby was photography, in which he was an expert, and he was one of the founders of the Cork Photographic Society. He was president of the Society until his departure to Sidcup, Kent, on retirement in 1924.

Dixon married Miss Nina Haughton, of Dublin, in 1888, and his two sons graduated at University College, Cork: Wilfred (who died soon after graduation) in medicine, and Emerson in engineering. He is survived by his widow, one son and a married daughter.

JOSEPH REILLY.

Dr. J. D. Rolleston

By the death on March 13, at the age of seventy-three, of Dr. J. D. Rolleston, British medicine has lost a man who had an international reputation for his work on the clinical aspects of the infectious diseases, and in the field of the history of medicine. His friends had for some time noticed a gradual decline in his physical powers, and his death took place as the termination of a short illness.

John Davy Rolleston was the son of Dr. George Rolleston, Linacre professor of anatomy and physiology at Oxford. There 'J. D.' was born in 1873, and he was thus junior by eleven years to his brother Humphry, later destined to become the regius professor of physic at Cambridge, and president of the Royal College of Physicians. J. D. Rolleston was a classical scholar both of Marlborough and of Brazenose College, Oxford. His medical training was obtained at Charing Cross Hospital between 1895 and his qualification in 1900. He graduated M.D. (Oxon.) in 1904.

Rolleston spent practically the whole of his professional life as a specialist in the acute infectious diseases. Between 1902 and 1930 he served in three of the hospitals of the Metropolitan Asylums Board. Possibly his most intensive period of literary activity in the clinical field was reached while he was senior assistant medical officer of the Grove Fever Hospital. In 1926 he became medical superintendent of the Western Fever Hospital at Fulham, and he retained this position after the M.A.B. hospitals were transferred to the London County Council, and until his

retirement in 1938. He was an able hospital administrator and a clinician of great skill, whose interests and knowledge extended widely beyond the domain of the specific fevers.

It was in the field of medical literature that Rolleston's name became widely known in many countries. In 1925 he produced his exhaustive textbook on the "Acute Infectious Diseases", and other editions followed in 1929 and in 1940. At the time of his death he was working on a fourth edition. This book summarized the literature as few similar books have ever done, and the first-hand nature of most of the book is indicated by the fact that he quotes nearly ninety papers by himself alone on the various diseases. In the clinical field Rolleston also contributed freely to various abstracting journals, to the *Medical Annual*, and to the *British Encyclopædia of Medical Practice*; and he edited the *British Journal of Children's Diseases* during 1910-44.

Dr. Rolleston was also well known for his writings on the history of medicine. He was president of the Section of the History of Medicine of the Royal Society of Medicine, and in 1935-36 he delivered the Fitzpatrick Lectures before the Royal College of Physicians. These lectures were eventually published as "The History of the Acute Exanthemata". He was an honorary member of the Royal Rumanian Society for the History of Medicine and a member of the Société Française de l'Histoire de la Médecine. In 1922 he was general secretary of the International Congress of the History of Medicine which was held in London, and in 1925 he was vice-president of honour of the Geneva Congress. He was interested in several languages, and in French literature he was especially proficient. He was a life-long student of Voltaire, and he had published papers on the French philosopher.

Dr. Rolleston was a member of the council of the Society for the Study of Inebriety, and he did much important work in this field. During his later years he devoted a great deal of attention to the relations between folk-lore and medicine, and he was also a member of council of the Folk-lore Society. He had for long been a corresponding member of the Société de Pédiatrie de Paris. He had for many years been associated with the Royal Society of Medicine, and at one time or another he was president of four sections—history, children, epidemiology and State medicine and clinical—which possibly constitutes a record. After his retirement in 1938 he contributed to the journals no fewer than twenty articles on folk-lore and literary subjects. He had served as honorary librarian of the Royal Society of Medicine, and as representative of the Royal College of Physicians on the committee of management of the Chelsea Physic Garden.

Dr. Rolleston is survived by his widow, a son and a daughter.

E. ASHWORTH UNDERWOOD.

DR. W. J. C. ORR, who died on March 13, held an I.C.I. Fellowship in Chemistry at the University of Glasgow, having taken up this post in October last year. Previously he had held a research post with the British Rubber Research Association, and had worked in the Universities of Cambridge and Edinburgh. He was well known for his work in physical chemistry, especially on reactions involving isotopes, thermodynamics generally, and bond energies, on which subjects he had published a large number of papers.