

James Lorrain Smith, M.A., M.D., LL.D., D.Sc.,
F.R.C.P.Ed., F.R.S.

JAMES LORRAIN SMITH died in Edinburgh on 18th April 1931. He was in his sixty-ninth year, having been born on 21st August 1862, at Half Morton, Dumfriesshire, the fourth son of the late Rev. Walter Smith.

He was educated at George Watson's College, Edinburgh, and afterwards at Edinburgh University, where, in 1884, he graduated M.A. with first-class honours in Philosophy. He then commenced the study of medicine, and in 1889 graduated M.B., C.M., with first-class honours. In 1893 he obtained his M.D. degree, with a gold medal for his thesis on "Thyroidectomy and Respiratory Exchange—a Contribution to the Pathology of Myxœdema."

Following his graduation in medicine in 1889, he had a term as resident in the Edinburgh Royal Infirmary under Dr Affleck (later Sir James Affleck), and then he went to Oxford University, where he worked under Professor Burdon-Sanderson. While there he collaborated with Dr J. S. Haldane in a brilliant series of investigations on the respiratory function and oxygen capacity of the blood. One outcome of this work was the now well-known method of estimating the blood volume by means of carbon monoxide.

In 1892 he went to Cambridge as John Lucas Walker Scholar under Professor Roy and continued his physiological researches.

In 1895 he was appointed Lecturer in Pathology in Queen's College, Belfast (now Queen's University), and soon his lectureship was made a Chair. He was also Honorary Pathologist to the Royal Victoria Hospital in that city.

In 1904 he became Professor of Pathology in Manchester, and in 1912 he was called to the Chair of Pathology in Edinburgh to succeed his former teacher, Professor Greenfield.

Such is the bald recital of his progress from one area of work to another.

Beginning as a student on the Arts side, he gained distinction in pure philosophy. For many men this would have determined their direction of life work. For him it served but as a rich background for his later more practical studies. In medicine he had a like brilliant course, and naturally to his type of mind the scientific side of the

profession offered ripe opportunities for probing the unknown and elucidating the obscure. At first it seemed as if he were destined for a career in physiology, but for him this was but a means towards the study of abnormal function, and his appointment to Belfast was the definite departure on his life work.

The earlier training, philosophical and physiological, gave him a wonderful breadth of view and width of resource in his subsequent pathological work—indeed it explains the trend of his observations and methods of teaching.

His researches were in many fields, but whatever he touched he illuminated. The basic problems interested him, as is seen first in his respiratory and blood work. Later, in Manchester and in Edinburgh, the primary changes in degeneration, especially fat and lipid changes, occupied his attention. During the War his laboratory became the scene of activity on some of the very practical problems affecting the troops. The best-known result is the hypochlorite antiseptic that became known as "Eusol," but he also, in conjunction with James Ritchie and J. W. Dawson, demonstrated experimentally the pathogenesis of "Trench Foot." In addition to these matters he attacked the problem of the prevention of gassing in characteristic fashion. He showed by personal experiment how charcoal could absorb large amounts of chlorine—one of the early war gases used. Charcoal was available in the trenches for braziers: the soldiers had socks; therefore he argued and demonstrated that—as an emergency measure at least—by filling a sock with charcoal and holding it over mouth and nostrils it was possible to exist for a time in an atmosphere thick with chlorine. This work is mentioned here in some detail as it was never published and, indeed, more efficient and elaborate methods were devised for combating gas, but it shows his practical mind and how he seized upon what was to hand and put it to good use.

It was the same practical spirit which led him to devise the method of teaching pathology by concrete examples. This method, begun in Manchester and perfected in Edinburgh, depends upon the intensive study of a series of cases. The functional disturbances as shown by the clinical signs and symptoms are compared with the disordered structures as seen in the pathological lesions. In a selected series of cases the main pathological processes can be illustrated and the student has definite pictures around which he can group his knowledge: also he is initiated into the method of accurate observation of data and the correlation of these as regards cause and effect. In Edinburgh Lorrain

Smith still further extended his method by organising a course for the third-year medical students wherein the subjects of medicine and surgery are studied concurrently with those of pathology, pharmacology, and therapeutics: each one complementary to the other.

The Medical Faculty of Edinburgh University, recognising his organising ability, elected Lorrain Smith Dean in 1919, an office he held till his death. To him this office was no sinecure, for he devoted much care and thought to the multifarious matters that came before him. His clear grasp of essentials and his breadth of view and ready sympathy made his occupancy a happy one for his colleagues. Having arrived at a decision he adhered to it and saw to its accomplishment, not ruthlessly but gently and smoothly, though quite effectually.

In the wider sphere of medical administration he took his full share, as in various Government inquiries such as the Royal Commission on Irish University Education in 1901, and on the pathological effects of factory conditions in the spinning industries. He was a member of the General Medical Council in 1912-1913, representing Manchester University, and again in 1927 as the representative of Edinburgh University. He acted as Vice-President of the section of Pathology at the Annual Meeting of the British Medical Association in Oxford in 1904, and as President of the section of Pathology and Bacteriology at the annual meetings at Cambridge in 1920 and at Edinburgh in 1928.

Lorrain Smith was possessed of a strong personality. Handsome of face, tall and spare in stature, he was rather reserved in speech, weighing his words carefully before giving them forth. Though deeply versed in academic philosophy and in the practical philosophy of life his was a mind simple, direct, and eminently sympathetic. He was not easily ruffled: serene in trouble, he possessed that optimistic outlook that refused to be daunted by difficulties, which, for him, were but created to be tackled cheerfully and valiantly. Externally somewhat austere, he preserved a quiet humour close beneath the surface, ready to break forth and ease the tiresome toil or cheer the respite from work. Quietly happy at work, patently happy at play, he had the faculty of attracting people to himself and of working with them in brotherly collaboration, and he was ever generous in according credit to those co-workers for results achieved.

His friendship was a thing to value and is a treasured memory to many.

He gave of his wisdom and of his humour freely and joyfully.

He received without asking the best his friends could give in

return. In time of trouble no one could be more helpful or more gentle.

He has left an unfinished monograph on "Growth," a product of his ripe wisdom and experience. He has bequeathed to his generation and his friends a finished and beautiful product in his life work and personality, a product which will grow and bear fruit in ways none may foresee.

He was elected a Fellow in 1915, and served on the Council of the Society from 1918-1921.

A. M. D.