

Subarachnoid Serous Sac.

Arrested Liver Development.

(*Edinburgh Medical Journal* 1866 and 1869.)

Hypospadiā with Cleft Scrotum (*Edinburgh Medical Journal* 1873).

PROFESSOR SANDERS. By Professor T. R. Fraser.

WILLIAM RUTHERFORD SANDERS was born in Edinburgh on the 17th of February 1828. His father was a medical practitioner whose name is associated with a valuable and extensive series of observations on the action of digitalis. He received a portion of his general education at the High School of Edinburgh, under the late Dr. Bryce, and completed his classical and literary training at the University of Montpellier, where he graduated with distinction as Bachelor in Letters in 1844. Soon afterwards he returned to Scotland, and in the winter of 1845 he began his medical studies in the University of Edinburgh.

Even at this early period the characteristics which distinguished William Sanders at a later period of his life were manifested. He devoted himself to his work, taking a leading part, for example, in the debates of the Royal Medical Society, which led to his being elected a President of the Society in 1848. He also found time during his studies to engage in an investigation on the structure of the spleen, the results of which were presented as a thesis, when he graduated as Doctor of Medicine in 1849, and obtained for him the reward of a gold medal. This thesis was published in Goodsir's *Annals of Anatomy and Physiology*, and has since retained an authoritative position in medical literature. It constituted the foundation of other and subsequent researches, which have led to the association of his name with those of Gairdner and Virchow in the first descriptions of the now well-known waxy or amyloid process of degeneration.

Soon after his graduation in medicine, Dr Sanders proceeded to Paris and Heidelberg for the purpose of acquiring, under the direction of distinguished teachers, as thorough a training as possible in the most advanced methods of investigation in pathology and microscopic anatomy. On his return to Edinburgh he

applied himself diligently to pathological and clinical work, holding for a short time the interim appointment of Pathologist to the Royal Infirmary, and engaging with much success in tutorial instruction in connection with the University class of clinical medicine.

In 1851 and 1852 two papers worthy of note were published by him. In the first he summarised the valuable labours of Claude Bernard on the production of sugar in the liver of man and animals; and in the second he gave a description of the speculum invented by Helmholtz for examining the fundus of the eye, thereby introducing into Britain an instrument which has now become indispensable for the diagnosis of diseases of the eye.

The conservatorship of the museum of the Royal College of Surgeons having become vacant, Dr. Sanders was in 1853 appointed to this office, and during his tenure, extending from this time to the date of his appointment to the chair of General Pathology in the University (1869), he amply vindicated the wisdom of his selection by his devotion to the interests of the museum, his industrious study of the valuable means of pathological training which it affords, and his efforts to render these means available for the education of the students and practitioners of Edinburgh by a series of demonstrations and lectures, which met with much success.

In 1855 he added to his other duties that of a lecturer on the Institutes of Medicine in the Extra-Academical School; and in 1861 he began, as physician to the Royal Infirmary, a course of instruction in clinical medicine which formed a material foundation for his after success as a great physician. The writer of this notice well remembers the many evidences which Dr. Sanders gave, even during the first years of his hospital work, of indomitable perseverance and determination to spare no trouble in ascertaining to the utmost of his power the exact condition of the maladies of his patients. His time and thoughts were ungrudgingly bestowed upon his cases, and for several years it was his custom to spend from two to three hours daily in the wards of the hospital. Among other results of this devotion to bedside observation, he acquired materials for communications to the literature of practical medicine; and from the time of his appointment to the hospital his published papers rapidly grew in number, and included many important

papers and monographs, such as those on coalminers' phthisis, on Addison's disease, on several forms of diseases of the nervous system, and on diseases of the heart and kidneys. The greater number of these publications appeared in the *Edinburgh Medical Journal*, with which he was officially connected as joint-editor from 1859 to 1861, and as sole-editor from 1866 to 1869.

Dr. Sanders had now acquired a high reputation as a scientific observer and a physician, and on the chair of General Pathology in the University becoming vacant by the resignation of Professor Henderson in 1869, his acknowledged eminence as a pathologist secured for him the appointment. He entered upon the duties of his new office with the same spirit as had characterised all his other undertakings. He determined, in the first place, that his teaching should be thorough. His great anxiety was that he should place before his students such an account of his subject as would adequately represent every important doctrine and fact, and he spared no trouble in collecting from all sources the materials that were required for this object. His previous training in scientific observation and in teaching had placed him in an advantageous position for ensuring success. His knowledge was great, his judgment and critical genius well-balanced, and the familiarity resulting from long experience had enabled him to overcome a diffidence which was natural to him, and to impart to his lectures a decision in statement and earnestness in manner which were peculiarly attractive to his hearers.

On his appointment to the professorship of General Pathology he retired from the office of Ordinary Physician to the Royal Infirmary, but continued the teaching of clinical medicine in the wards of the Infirmary assigned for this purpose to the University. The medical school of the University had already entered upon that course of rapid growth and reviving importance which has been uninterruptedly maintained to the present time; and although the teaching of medicine in its most practical aspect was then in the hands of such masters as Bennett and Laycock, the accession of Dr. Sanders proved of the greatest value. Afterwards, when the failing health of his colleagues interfered with their sharing in the work of clinical teaching, the value of his ripe experience as a teacher became the more apparent. For a time, indeed, the entire responsibility of conduct-

ing the University class of clinical medicine devolved upon him ; and then, as well as during the whole time that he acted as a clinical teacher, he amply sustained the reputation he had acquired before his appointment in the University. Recollecting the difficulties which he had been led to appreciate while he acted as a clinical tutor in the earlier years of his professional life, he introduced a class of tutorial instruction, for the purpose of ensuring that his students should have an opportunity of acquiring a fundamental training in the elements of medical diagnosis, without which that thoroughness of teaching which he always aimed at could not be effected.

An earnest wish that his students should also be thoroughly trained in pathology, led to his adopting the system of practical teaching in connection with his lectures on that subject. In the first session of his professorship he instituted practical classes, where students were trained to observe for themselves the naked-eye and microscopic characters of morbid conditions, of which they could acquire only a superficial knowledge in the lecture-room. The advantages of this training were soon so highly appreciated that the practical classes were attended not only by the greater number of his students, but also by many graduates.

Thoroughness in teaching, thoroughness in all the work he undertook, was, indeed, one of the most prominent traits of Dr Sanders' character. It gained for him the confidence of his students. It gained for him also the confidence of his fellow practitioners ; and when, in the course of time, the opportunity was given to him for entering upon consultation practice, he reaped the advantages of a well-merited confidence by quickly attaining a foremost position in this country as a consulting physician. And here the writer of this notice would venture to quote a passage written by one who was long associated with Dr Sanders in professional and personal interests, and whose recognised authority as an eminent physician lends a peculiar value to his opinion :—“ One important aspect of Dr. Sanders' precept and example as a teacher deserves a word of notice. He was entirely superior throughout to the affectation which often leads men aiming at eminence as practitioners to speak disparagingly of the science of medicine as opposed to the art. . . . Dr. Sanders' first care as Professor of General Pathology was to see

that his students had the opportunities and guidance necessary for securing an ample basis of demonstrated fact, on which, in due time, a superstructure of pathological science might be erected; and his latest as well as his earliest work bears testimony to the prominence in his mind of that essentially pure love of scientific truth for its own sake, which has been in all ages the guiding star of truly great practitioners of medicine. . . . Even amid the pressing calls of consulting practice, and amid distractions of a yet graver kind, . . . he never forget the ladder by which he rose to fame, the only true ladder, it may be added, by which any man ought to rise on whom the training of the younger medical mind in any large degree depends; and no doubt it may be said of him that the confidence reposed in him by a wide circle was largely founded on the belief that he had so gained his eminence, and that a position attained by only the most legitimate scientific methods would never be abused to lower and baser ends.”

The graver distractions referred to by the writer of this quotation were the evidences of decaying health, which first manifested themselves in January 1874, or little more than four years after Dr. Sanders was appointed a professor. In their first manifestations they caused the gravest anxiety to his friends, unfortunately but too clearly confirmed when, after several intervals of apparent restoration to health, during which he resumed for a time his duties as a teacher and physician, a sudden attack of hemiplegia of the right side, with nearly complete aphasia, occurred on the 8th of September 1880. He remained in this condition, with occasionally some improvement in the paralytic symptoms, and with an intellect apparently unclouded, until February of the following year, when a second attack occurred, attended on this occasion with loss of consciousness, and in less than twenty-four hours afterwards he expired on the 18th of February 1881, the day following the anniversary of his fifty-third birth-day.

Cut off in the prime of his life, Dr. Sanders' loss is lamented by a widow and a family of two sons and three daughters. It is lamented also by a wide circle of friends. The universal respect entertained for him was exhibited by the large gathering that took place at his funeral on the 23rd of February—a gathering which comprised representatives of all classes of society, and in

which were conspicuous many in the poorest ranks who had derived advantage from his skill as a physician. It has also been exhibited in the successful realisation of a scheme to commemorate his life by a monument to be placed over his grave in the Dean Cemetery, and a bust to be preserved in the University, which have been executed by Mr. Hutchison, R.S.A.

His friends and associates lament the death of a sincere, truthful, and warm friend. His colleagues recognise that the profession of medicine has lost one of its most eminent representatives, an earnest denouncer of abuses, and a powerful advocate for reforms; a man of science, diffident in self-assertion, but influential because of the merits which he himself was slow to assert.

DR. ANDREW WOOD. By Professor Maclagan.

DR. ANDREW WOOD was the representative, in the fourth generation, of a family which for considerably above a century and a half has been identified with the medical profession in Edinburgh, and especially with the Royal College of Surgeons. His great-grandfather, William Wood, entered the college in 1716; his grandfather, Andrew Wood, in 1769; his father, William Wood, in 1805; and he himself in 1831. It does not appear that the first William Wood ever was chosen President of the College, but all his three descendants obtained that honour, two of them being twice elected.

The subject of the present notice was born on 1st September 1810. He was educated at the High School, being, according to the then existing system, four years under Mr. Lindsay, and then two years under the Rector Dr Carson, his place in his last year's class being a high one, and showing that even as a boy he had a taste for the ancient classics which were to him a source of enjoyment to the end of his life. After having gone through the humanity classes he entered upon the study of medicine, and took his degree of M.D. in August 1831, when he was not quite twenty-one years of age, under a custom then in force, which permitted those to receive their degree whose twenty-first birthday occurred before the commencement of another academic session. Very soon after his twenty-first birthday he was admitted to the Royal College of Surgeons, his probationary essay being upon