foretold as then to happen had actually taken place, the task was generally recognised to be one of hopeless difficulty. Even should it be thought, however, that he was not very successful in his apocalyptic researches, the members of the Royal Society cannot need to be reminded that in the same department of investigation Sir Isaac Newton himself somewhat signally failed.

Dr. Cumming's publications were very numerous, and several of them passed through many editions and were very widely read. They may be distributed into three classes:—(1) Works of practical religious edification—such as those entitled *Daily Life*, *Voices of the Night*, *Sabbath Morning Readings*, &c.; (2) Controversial Works—of which the *Hammersmith Discussion* and the *Popular Lectures on Essays and Reviews* may be mentioned as examples; and (3) Works on Prophecy — such as the *Apocalyptic Sketches* of 1847, 48, and 49, and *The Great Tribulation*, *Redemption draweth Nigh*, and *Seventh Vial*, of a later period.

Dr. Cumming found relaxation and pleasure in tending bees, and was the author of the letters on apiculture, signed "Bee-master," which appeared in the *Times*.

Upwards of two years before his death, his powers of mind and body began perceptibly to fail, and even before there were any signs of waning vigour, fashion and popularity had gone to flatter others; but the announcement of his decease must have carried sadness to many, as they remembered the conspicuousness of the position which he had long held, the abundance of his labours and the multitude of his works, the charm of his speech and the popularity of his writings, his bold and tenacious advocacy of his convictions, and his amiable and estimable personal qualities.

## Dr. P. D. Handyside. By Dr. J. H. Balfour, F.R.S.

Peter David Handyside was born on 26th October 1808. He was the son of William Handyside, Writer to the Signet in Edinburgh. He died on 21st February 1881, at 16 Lansdowne Crescent, Edinburgh, after a lengthened illness.

He was educated in Edinburgh, and took his degree in medicine in the University of Edinburgh in 1831. He was a distinguished student, as is evinced by the fact that he was elected Senior Presi-

dent of the Royal Medical Society, and also that he was a Medallist of the Harveian Society.

Having been an apprentice of Mr. Syme, the eminent surgeon, his attention became specially devoted to the study of anatomy and surgery. After getting his medical degree he prosecuted his anatomical studies for a time in Paris, and in Heidelberg under Tiedeman. On his return to Edinburgh in 1833, he was admitted to the Fellowship of the Royal College of Surgeons of Edinburgh, after undergoing two public examinations, and submitting a probationary essay on "Osteo-Aneurism," which was published and circulated. In the session 1833–34 he commenced a course of lectures on anatomy at 4 Surgeons' Square, Edinburgh, and became a popular and successful teacher. About six years afterwards he became one of the surgeons in the Edinburgh Royal Infirmary. He was deeply impressed with the relation between anatomy and surgery, and in the summer session he gave a full course of operative surgery. At this time he commenced a course of lectures on surgery at No. 1 Surgeons' Square, and gave up his lectures on anatomy.

A vacancy having occurred in the chair of General Pathology by the resignation of Dr Thomson, Dr Handyside became a candidate, but was not successful. In 1842 a vacancy occurred in the chair of Surgery by the sudden death of Sir Charles Bell, and Dr Handyside came forward as a candidate. The vacancy, however, was filled up by the election of Mr James Miller. Dr Handyside considered that extra-mural teaching on this subject would be much affected thereby, he therefore recommenced his lectures on anatomy, and, along with Mr Spence and Dr Lonsdale, took up the School of Anatomy in Surgeons' Square, vacated by the recent appointment of Dr Allen Thomson to the chair of the Institutes of Medicine in the University. This school easily took the lead among the other schools of anatomy in Edinburgh. The appointment of Mr John Goodsir to the chair of Anatomy in the University on the retirement of the third Monro in 1846, altered very considerably the circumstances of the Extra-mural School, and after conducting a class during the session 1846–47, Dr Handyside relinquished anatomical teaching, and devoted himself entirely to his medical practice.

Unfortunately Dr Handyside's health gave way under the strain of his practice, and he was forced to go abroad for rest and change. In 1863, however, on the appointment of Dr Struthers to the chair of Anatomy in Aberdeen, he was persuaded to resume his anatomical teaching at Surgeons' Hall, and he continued to conduct his class there until within a few weeks of his death.

Dr Handyside was clear and emphatic as a lecturer, and possessed the esteem and respect of his students, to whom he was ever most attentive and courteous. He was an excellent draughtsman, a most important talent for an anatomical teacher. He was surgeon to the Edinburgh hospital for four years, and was a clinical lecturer there. He performed some most skilful operations, of some of which accounts were published. Dr Handyside was elected a Fellow of the Royal Society of Edinburgh on 20th February 1847.

Dr Handyside was intimately connected with the Edinburgh Medical Missionary Society from the first year of its existence, and he was for forty years on its committee or on the board of its directors. He himself opened and conducted for some years a dispensary on medical mission principles at Main Point, between West Port and Lauriston. Much good work was done, and Dr Handyside exercised a most wholesome moral and religious influence over the students whom he gathered round him there. In 1858 Dr Handyside transferred this private dispensary to 39 Cowgate, and it was three years afterwards formally adopted by the directors of the Edinburgh Medical Missionary Society.

He devoted much attention to Comparative Anatomy, and was particularly interested in the structure of fishes. In connection with this subject he contributed to our *Proceedings* in 1873 a paper "On the Anatomy of a new species of Polyodon (P. Gladius, *Martens*);"* and he resumed the subject in a continuation of the above paper in 1878. In these contributions he gave an anatomical description of the respiratory, circulatory, and pneumatic systems in this remarkable fish, and also noticed shortly its alimentary and other viscera. He proposed, in a further continuation of the paper, to give an account of its articular system and endo-skeleton, but unfortunately did not live to overtake this part of the subject.

In 1869 he contributed a paper to our *Proceedings*, "On Traces in the Adult Heart of its Transitions in form during Fœtal Life."*

He also contributed to the *Edinburgh New Philosophical Journal*,† "A History of the Sternoptixinæ, a family of the Osseous Fishes, and their anatomical peculiarities, with a description of the *S. celebes*."

In the *Edinburgh Medical and Surgical Journal*, he wrote an "Account of a case of Hermaphrodism."

He published in the *Journal of Anatomy*,‡ "A Notice of Quadruple Mammæ—the lower two rudimentary—in two adult Brothers." §

The following is also a list of other articles published by Dr Handyside as reported by Professor Struthers in his biographical notice in the *Edinburgh Medical Journal* :—

Cases in Surgery, including Necrosis of the Thigh Bone (*London and Edinburgh Monthly Journal of Medical Science*, 1845).

Spasmodic Affections of the Larynx, including a case in which Tracheotomy was performed through a Bronchocele.

Amputation at the Hip-Joint, with Figures of the Tumour and Stump.

Caries of the Tarsus and the Ankle-Joint, in which is described and figured a method of performing Syme's Amputation at the Ankle by antero-lateral flaps.

Outlines of Anatomy.

Engravings and Description of the Blood-Vessels.

Experimental Essay on Venous and Lymphatic absorbent Systems.

Theory of Death from Air admitted into the Veins.

Encephalocele.

Acrania.

Cyclo-cephalian Form of the Etmocephaloids.

* *Proceedings of the Royal Society of Edinburgh*, vol. viii. pp. 50–51, 136–37 ; vol. ix. p. 660.

† Vol. vi. 499.

‡ Vol. xxvii. pp. 324–331.

§ Vol. vii. pp. 56–59.

Subarachnoid Serous Sac.

Arrested Liver Development.

(*Edinburgh Medical Journal* 1866 and 1869.)

Hypospadia 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