to him. His letters, always brief and pointed, were written in a clear and unhurried hand, and so far as I know he never employed a secretary, a typewriter or a dictaphone. From his boyhood's intensive Bible lessons, for his aunt intended him for the Church, and from the study of Shakespeare, he derived a distinctive literary style, concise, arresting, and seasoned with an occasional archaism or blunt Anglo-Saxon word. It may have been the foundation of his friendship with Kipling that both men were students of the art of expression.

Bland-Sutton once said to me in reference to a very large text-book: "It is very easy to write a big book and very difficult to write a small one," surely a salutary doctrine for these days. The truth was illustrated in Bland-Sutton's classic book on tumours, which has gone through many editions. In it he brought into small compass and proper interrelation a crowd of unorganized facts, and vivified the subject for generations of students. He would have nothing to do with dull half-tone illustrations, and insisted on wood-cuts. I still remember the interest and relief with which I read this book, so different from some of the woolly and verbose text-books of its day.

Bland-Sutton's mind can also be studied in his earlier book of 1890, "Evolution and Disease", which broke the new ground of comparative pathology. He wished to indicate that "there is a natural history of disease, as well as of plants and animals". "We shall find conditions which we regard as abnormal in man presenting themselves as normal states in other animals." "There has been an evolution of disease *pari passu* with evolution of animal forms." "I quickly saw that the manifestations of disease were regulated by the same laws which govern physiological processes in general." Such are some of his conclusions, illustrated by a wealth of detailed examples derived from his studies as pathologist to the Zoological Society. A subject of special interest to him was the comparative pathology of the reproductive organs in animals, and in 1892 he received the Jacksonian Prize of the Royal College of Surgeons for a study of diseases of the ovaries and uterine appendages, which probably determined the direction of his surgical activities.

For some years Bland-Sutton was an active member of the old Obstetric Society, in which discussion was at that time conducted with gloves of minimum weight. There is much to be said for frank discussion, but the hand of the dominant seniors was heavy upon their juniors. A young man read before the Society a paper explaining a novel condition of which he had found an example in a hospital museum. Patronizing criticism followed until Bland-Sutton got up. He said: "Some years ago I was a member of a committee appointed to consider this specimen. We could come to no conclusion about it and I said that it should be placed in a museum, and that some day light would be thrown upon it. Gentlemen, that light has come." Such generous feeling for his juniors was habitual with Bland-Sutton, as the writer—for some years his assistant surgeon at the Middlesex Hospital—can testify from personal experience.

Though in youth he must have been a great reader, Bland-Sutton's regard for books was not a very high one, and he always strove for first-hand knowledge of any subject which interested him. His library was kept to an absolute minimum, partly by the incineration of intruders as soon as they had been perused. His interest in general literature was not keen, though Egyptian and Persian archaeology fascinated him. The Bible, Nature, Shakespeare, the world of men and women (for he was a great traveller), were his educators, and for his strong personality these sufficed. It was not only in his profile, but in himself also that something Napoleonic could be detected. It showed in his intense industry, his coolness in crisis, in his quick grasp of the essentials of a problem, in the rapid translation of decision into action, and in a certain aloofness of personality. His nature was kindly and generous. Fortune allowed him to enjoy the golden age of Victoria and to exercise for years a splendid hospitality in the replica of a hall which a king of Persia had built for himself. In his consulting room was an Egyptian frieze representing the weighing of the soul after death in the courts of Osiris. It was his reminder to himself of his mortality, and of the ethical standards surviving from his Puritan training.

I cannot conclude without a reference to the mutual devotion which for so many years bound Sir John to Lady Bland-Sutton, who survives him.

W. SAMPSON HANDLEY.

Prof. J. A. MacWilliam, F.R.S.

By the death on January 13, at the age of seventy-nine years, of Prof. J. A. MacWilliam, the University of Aberdeen and the medical sciences have lost one who by devoted service to his Alma Mater and untiring zeal in scientific investigation had become known to many at home and abroad. He had held the regius chair of physiology at Aberdeen for forty-one years, from 1886 until 1927.

Prof. MacWilliam's chief contribution to scientific medicine was the discovery that the peculiar condition known as fibrillar contraction of the heart consisted of a lack of harmony in contraction and relaxation of the minute bundles of muscle fibres of which the walls of the heart are composed. He showed that fibrillation is not due to interference or destruction of some co-ordinating nerve centre; but that it is brought about by what he described as a "rapid succession of inco-ordinated peristaltic contractions". He also showed clearly the relation of the refractory period to this disturbance. It is not without interest to note that the real significance of his work was not fully recognized until comparatively recent times. The work had its inspiration in the famous school of Ludwig at Leipzig, which, in the eighties of last century, was a Mecca for many of the younger physiologists on both sides of the Atlantic. Bowditch of Harvard, Gaskell of Cambridge, MacWilliam and others were at that time actively engaged in demonstrating those peculiar properties of heart muscle upon which cardiac rhythm depends.

For several years, MacWilliam's indifferent health interfered with intensive original research, and it was not until 1913 that a further series of important papers appeared on the measurement of blood pressure in man. These investigations were the subject of a comprehensive discussion which appeared in *Physiological Reviews* in 1925. There are other publications to which reference might be made, but those mentioned indicate the extent of his work and the high estimate which has been placed upon it. In 1916 MacWilliam was elected a fellow of the Royal Society, an honour which brought satisfaction to many of his colleagues and students.

It is perhaps as teacher and lecturer that MacWilliam will best be remembered. Gifted with a clear and lucid style, he could present, with but the slightest reference to notes, the most difficult aspects of his subject. As a lecturer he had few equals; every lecture was excellently arranged, clearly delivered and full of interest and incident. To those who had the privilege of knowing him intimately, Prof. MacWilliam revealed a new depth and richness of character which made one realize the greatness of his personality. The experience of the years—and they were not without their share of sorrow and suffering—had produced a wonderful combination of philosophical insight and critical scientific judgment.

By his personal qualities, always gracious, never unkindly critical, ever sympathetic, Prof. MacWilliam endeared himself to many generations of Aberdeen students. His charm of manner, his constant kindness and courtesy, won for him the affectionate regard of all who knew him intimately. In the world of science his name has an enduring place; in the hearts of his friends his memory will for long be cherished.

E. W. H. CRUICKSHANK.

Sir Halley Stewart

SIR HALLEY STEWART, whose death at the advanced age of ninety-nine years occurred on January 26, was a generous supporter of scientific research. One of his outstanding benefactions was the founding of the Halley Stewart Laboratories for Physics Research at Hampstead, which now forms a post-graduate school of the Physics Department of King's College, London. These laboratories were in the first instance put at the disposal of the College in 1932 for the special use of Prof. E. V. Appleton, whose radio researches in the college buildings in the Strand had been greatly hampered by the electrical interference caused by adjacent machinery. The premises in Hampstead, which were formally opened by Lord Rutherford, provided a fully equipped electrical research laboratory as well as a residence above, for the professor of physics. During the years 1932–36, Prof. Appleton and his students were able to continue unhampered their exploration of the properties of the higher atmosphere using radio waves emitted from the roof of King's College and received at Hampstead. Since Prof. Appleton's translation last year to Cambridge, the Halley Stewart Laboratories have been directed by the present Wheatstone professor, Dr. C. D. Ellis, whose researches lie mainly in the field of radioactivity.

WE regret to announce the following deaths:

Prof. Stanley R. Benedict, professor of biochemistry in Cornell University Medical College, on December 21, aged fifty-two years.

Prof. Philip E. Browning, formerly associate professor of chemistry in Yale University, an authority on the rare elements, on January 2, aged seventy years.

News and Views

New Year Honours

THE following names of scientific workers and others associated with scientific work appear in the list of New Year honours conferred by the King, which was published on February 1. *Baron*: Sir Harry McGowan, chairman of Imperial Chemical Industries, Ltd. *Order of Merit*: The Right Hon. H. A. L. Fisher, warden of New College, Oxford, in recognition of his eminent position as an historian and of his services to literature. *K.C.B.*: Mr. H. T. Tizard, rector of the Imperial College of Science and Technology. *Baronet*: Mr. P. Malcolm Stewart, late Commissioner for the Special Areas (England and Wales). *K.C.M.G.*: Mr. F. A. Stockdale, agricultural adviser to the Secretary of State for the Colonies. *D.B.E.*: Lady (Juliet Evangeline) Williams, honorary treasurer, Queen Charlotte's Anaesthetic Fund, and honorary secretary of the Joint Council of Midwifery. *Knights Bachelor*: Dr. J. A. Arkwright, member

of the Agricultural Research Council; Prof. J. C. G. Ledingham, director of the Lister Institute, London, professor of bacteriology, University of London; Lieut.-Colonel A. G. Lee, Engineer-in-chief, Post Office Engineering Department, General Post Office; Dr. E. K. Le Fleming, chairman of the Council of the British Medical Association, a member of the General Council of Medical Education and Registration of the United Kingdom; Mr. C. G. Trevor, Indian Forest Service, Inspector-General of Forests, and president of the Forest Research Institute and College, Dehra Dun.

C.B.: Dr. L. D. Barnett, lately keeper of Oriental printed books and manuscripts, British Museum; Mr. F. C. Cook, chief engineer, Roads Department, Ministry of Transport; Dr. M. F. Lindley, comptroller general of patents, designs and trade marks and comptroller of the Industrial Property Department, Board of Trade. *C.S.I.*: Mr. F. Anderson,