health and social reform between the two nations. This influence is exerting its force to-day.

In the years of retirement, Newsholme's facile pen was seldom idle; and he visited many countries, including the U.S.S.R., to study their health conditions and to discuss their problems. His last two books, "Fifty Years in Public Health" and "The Last Thirty Years in Public Health", are not only autobiographical, but also possess scientific and historical value. Tall, handsome and bearded, with many social gifts, Sir Arthur was a popular figure in Great Britain and the United States. He married in 1881 Sara Mansford, and her death in 1933 was a great blow to him. Newsholme's work as administrator and epidemiologist takes high place in the story of British public health.

ARTHUR S. MACNALTY.

WE regret to announce the following deaths:

Dr. W. S. Bayley, who retired in 1931 from the professorship of geology at the University of Illinois, where he was head of the department, on February 14, aged eighty-one.

Mr. Lionel R. Crawshay, at one time a member of the scientific staff of the Marine Biological Association and for many years research officer, Sponge Fishery Investigations, West Indies and British Honduras, on April 24, aged seventy-four.

Prof. Kurt Huber, professor of experimental psychology in the University of Munich, recently executed for "traitorous conspiracy".

Prof. Martin H. Knutsen, professor of bacteriology at the Pennsylvania State College since 1928, on February 6, aged fifty-five.

NEWS and VIEWS

King's Birthday Honours

THE following names of men of science and others associated with scientific development appear in the King's Birthday Honours list:

Baronet: Sir John Fraser, regius professor of clinical surgery, University of Edinburgh.

K.C.B.: Dr. N. K. Johnson, director of the Meteorological Office.

K.B.E.: Sir T. Franklin Sibly, vice-chancellor of the University of Reading, and chairman of the Committee of Vice-Chancellors and Principals.

Knights: Capt. J. P. Black, managing director of the Standard Motor Co., Ltd., and chairman of the Joint Aero-engine Committee; D. A. E. Cabot, chief veterinary officer, Ministry of Agriculture; Dr. H. L. Eason, president of the General Medical Council; Dr. C. S. Fox, director of the Geological Survey, India; Dr. H. Spencer Jones, Astronomer Royal; J. M. Kennedy, deputy chairman of the Electricity Commission; P. M. Kharegat, vice-chairman, Imperial Council of Agricultural Research, India; E. Macfadyen, chairman of the governing body, Imperial College of Tropical Agriculture; Dr. A. D. McNair, vice-chancellor of the University of Liverpool; Prof. J. L. Myres, formerly Wykeham professor of ancient history, University of Oxford, for services to learning; Prof. G. P. Thomson, professor of physics, Imperial College of Science and Technology.

C.H.: E. W. Hives, for services in the design of aero-engines.

C.B.: J. M. Caie, deputy secretary, Department of Agriculture for Scotland; W. S. Farren, director, Royal Aircraft Establishment, Ministry of Aircraft Production.

C.I.E.: H. Trotter, utilization officer, Forest Research Institute, Dehra Dun.

C.B.E.: R. Chadwick, chief designer and director, A. V. Roe and Co., Ltd.; Dr. H. L. Guy, chairman of the Gun Design Committee, Scientific Advisory Council; Prof. J. Jewkes, deputy director-general of statistics and programmes, Ministry of Aircraft Production; Prof. J. N. Mukherjee, professor of chemistry, University of Calcutta; R. K. Pierson, chief designer, Vickers-Armstrong, Ltd. (Aircraft); Major R. W. Sharpe, chairman, Agricultural Executive Committee, Berwickshire; Lieut.-Col. W. W. Zambra, secretary, Imperial Communications Advisory Committee.

Prof. V. M. Goldschmidt, For.Mem.R.S.

PROF. V. M. GOLDSCHMIDT, whose election to foreign membership of the Royal Society has just been announced, has made outstanding contributions in each of the fields of petrology, crystal chemistry and geochemistry. His early studies in rock metamorphism marked a major advance in the correlation of the chemical and mineralogical composition of thermally reconstituted rocks and contained the first successful essay towards a systematic classification of rock-mineral assemblages in the light of the phase rule. The leader of great schools of geochemistry both at Göttingen and Oslo, Goldschmidt has for many years devoted his attention to the discovery of the principles governing the terrestrial distribution of the elements: in this programme his classical researches on the crystal structure of ionic compounds were early achievements and may be regarded as laying the foundation of the science of crystal chemistry. His exhaustive series of investigations on the chemical composition of rocks and minerals has revolutionized our knowledge of the distribution of the minor constituents of the earth's crust, while his similar studies on meteorites have brought a special contribution to the problem of the chemistry of the earth's deep interior. It is in these comprehensive researches, both geochemical and crystallochemical, that Goldschmidt has contributed in such large measure to the present-day picture of the geochemical evolution of matter within the lithosphere.

Prof. B. A. Houssay, For.Mem.R.S.

PROF. BERNARDO ALBERTO HOUSSAY, of Buenos Aires, elected a foreign member of the Royal Society on May 20, is one of the outstanding men of science of Latin America. He has held the chair of physiology in the University of Buenos Aires since 1919, and has made his laboratory a leading centre for endocrine research. His most remarkable discoveries concern the effect of the anterior pituitary body on carbohydrate metabolism; he showed that although the removal of the pancreas alone will cause diabetes, yet if the anterior lobe of the pituitary is removed at the same time the animal has no glycosuria and stays in reasonable health. Further analysis made it clear that the anterior lobe of the pituitary secretes

a hormone with an opposite effect on sugar metabolism to that of insulin, and that it is the absence of this hormone in the 'Houssay animal' which accounts for the lack of glycosuria when the pancreas is removed. Many other chapters in the complex story of endocrine interactions have been worked out in Prof. Houssay's laboratory and he has recently dealt with the problem of renal hypertension and the nature of the toxic substance which may be liberated by a diseased kidney. He is an honorary member of the Physiological Society and has published various papers in the *Journal of Physiology*.

Prof. T. J. Jehu: Retirement from Chair of Geology at Edinburgh

IN his student days T. J. Jehu, who is retiring from the regius chair of geology and mineralogy in the University of Edinburgh, had an unusually varied and distinguished career: at Edinburgh he graduated M.B., C.M. (1893), and B.Sc., with the class medal in geology (1894); at Cambridge he took a first class in both parts of the Natural Science Tripos (1897, 1898) and second class in the Moral Science Tripos (1899). Later, Jehu became lecturer in St. Andrews (1903–14), during which time he served on the Royal Commission on Coast Erosion (1906). In 1914 he returned to Edinburgh as professor of geology; and it was during his tenure of office that the Grant Institute of Geology was founded and endowed.

Jehu's scientific papers have always been of unusual interest, and have mostly appeared in the *Transactions of the Royal Society of Edinburgh*. Until he left St. Andrews, the lakes and glaciation of Wales specially attracted his attention. He sounded the lakes of Snowdonia, and he investigated the interaction of the local and Irish Sea ice in both Pembrokeshire and Carnarvonshire. In 1917 he published a memoir with Robert Campbell on "The Highland Border Rocks of the Aberfoyle District", making an outstanding contribution to our knowledge of the Cambro-Ordovician sequence of the south-east margin of the Scottish Highlands, especially in regard to its palæontology. In 1922 he produced "The Archæan and Torridonian Formations and Later Intrusive Igneous Rocks of Iona". This publication is important in itself, but is now chiefly remembered as a prelude to the "Geology of the Outer Hebrides", which Jehu and R. M. Craig brought out in five parts between 1923 and 1934. It is not too much to say that this serial chronicled the greatest bit of field geology tackled by any British university during the present century. Its outstanding characteristic is its treatment of a belt of flinty crush rock found along the eastern shores of the Western Isles. Here, of course, Jehu and Craig share credit with J. W. Dougal; but plenty remains to ensure for Prof. Jehu in his retirement the warm gratitude of fellow workers in Scottish geology.

Prof. Arthur Holmes, F.R.S.; Appointed to Chair of Geology at Edinburgh

PROF. ARTHUR HOLMES, of the University of Durham, who succeeds Prof. Jehu as regius professor of geology in the University of Edinburgh, has an international reputation in the fields of petrology and geophysics. His name became closely linked with the classic pioneer work on radioactive minerals while he was still a junior member of staff at the Imperial College, South Kensington. He applied this new kind of quantitative data to a re-assessment of the age of the earth, and deduced the approximate period of time spanned by each of the geological ages in sequence—from Pre-Cambrian time to the present day. His contribution to both descriptive and interpretative petrology is voluminous and impressive. His later work incorporates many thought-compelling reviews of conventional hypotheses concerning the thermal history of the earth, the physical state of the earth's interior, the nature and variability of magma, and the origin of igneous rocks. His contributions to geology have profoundly influenced the scope and trend of contemporary work in the field of petrogenesis, and in close co-operation with Dr. Doris L. Reynolds he has in recent years amassed data demonstrating the effectiveness of alkali-metasomatism, transfusion by emanations from deep-seated sources, and granitization—as processes transcending in importance those accommodated within the framework of conventional petrogenetic theory.

U.S. National Academy of Sciences First Charles L. Mayer Award

PROF. CHARLES B. HUGGINS, professor of surgery in the University of Chicago, has been awarded a two thousand dollar prize given by Dr. Charles L. Mayer and administered by the National Science Fund of the U.S. National Academy of Sciences. The award was offered for the "most outstanding contribution made during 1942 to present-day knowledge of factors affecting the growth of animal cells with particular reference to human cancer, and as a new type of prize for the advancement of fundamental scientific research administered under a new type of philanthropic foundation". The award was made to Prof. Huggins for his studies of the human prostate, with special relation to the cancers taking origin from this gland. He has shown that certain hormones which regulate the normal activities of prostatic cells have a marked influence as well on many of the cancers that are derived from them. By the utilization of this knowledge he has been enabled to control the growth of the cancers and of such secondary tumours as may already have formed in distant organs. These discoveries have large theoretical as well as practical implications.

A second Charles L. Mayer award of two thousand dollars for an outstanding study made in the same field in 1943 will be given, and entries and recommendations for consideration for this award should reach the office of the National Science Fund, 515 Madison Avenue, New York City, by January 15, 1944. The Advisory Committee is interested primarily in fundamental studies on the factors influencing growth of animal cells rather than applications to any particular aspect of normal or abnormal growth.

Visual Aids to Education

A SMALL exhibition of visual aids to education was held in the Conference Room of the Board of Education on May 25 and 26. This was organized for the Conference of Ministers of Education of Allied Governments meeting under the chairmanship of Mr. R. A. Butler, president of the Board of Education. The Board has already published a pamphlet dealing with mechanical visual aids. Here the problem was reviewed from a wider angle. The blackboard is the fundamental instrument of visual teaching. The problem of improving illustrated text-books is acute