

Royal Institution, chairman of the Norman Lockyer Observatory Corporation, and also president of the Egypt Exploration Society; he is a Messel medallist of the Society of Chemical Industry, a past president of the French Society of Chemical Industry, and he has carried out noteworthy archaeological excavations at Thebes, in Palestine, and in Brittany. The museum at St. Germain has been much enriched as a result of his excavations in Brittany. The Académie des Inscriptions, by its election of Sir Robert as a foreign associate member, has attracted to its service one whose knowledge in many fields can scarcely fail to promote its activities and influence.

Prof. A. F. Burstall

DR. AUBREY F. BURSTALL has been elected professor of engineering and dean of the faculty of engineering in the University of Melbourne, Australia. Dr. Burstall is a son of the late Prof. F. W. Burstall, who was professor of mechanical engineering in the University of Birmingham in 1896-1931. Dr. Burstall, who is thirty-four years of age, received his education at King Edward's School (New Street), Birmingham, at the University of Birmingham and at St. John's College, Cambridge. The results of his work on the combustion of various gaseous fuels in the high-speed internal combustion engine were published in a series of papers before the Institution of Automobile Engineers. Dr. Burstall joined in 1925 the staff of Synthetic Ammonia and Nitrates Ltd. at Billingham, which in 1928 became a constituent company of Imperial Chemical Industries Ltd. He held various positions of increasing responsibility on the engineering staff and in 1930 was appointed deputy chief engineer of the Billingham Factory. In 1933 he resigned his position to become technical adviser to the Aluminium Plant and Vessel Company of Wandsworth, London. The Engineering School at the University of Melbourne, to which Dr. Burstall is going, is one of the largest in Australia, the students numbering nearly two hundred. During the last two years of the four year course the undergraduates specialize in either civil, mechanical, mining, electrical or metallurgical engineering before taking their degrees. Dr. Burstall succeeds Prof. Wilfrid Kernot, who is retiring in March at the end of the present academic year.

Ernst von Bergmann

ERNST VON BERGMANN, who was one of the most skilful surgeons and commanding personalities in Germany of the last century, was born at Riga on December 16, 1836. He received his medical education at Dorpat, Vienna and Berlin and qualified on November 13, 1860. He commenced his career as assistant in the Dorpat surgical clinic and afterwards served as a medical officer in the Prussian Army in the war with Austria in 1866 and in the Franco-Prussian war in 1870. He was elected professor of surgery at Dorpat in 1871. In 1877, when war broke out between Turkey and Russia, he became consulting surgeon to the Russian Army invading Rumania, and in the treatment of wounds carried out the antiseptic

method just introduced by Lister. His activities as a military surgeon, however, were cut short by a severe attack of dysentery, and in 1878 he was appointed professor of surgery and senior surgeon to the Julius Hospital at Würzburg. He remained there until 1882, when he succeeded Langenbeck in the chair of surgery at Berlin. In 1887 he attended the Emperor Frederick in his last illness, when an unfortunate dispute as to the correct diagnosis and treatment arose between the German surgeon and Morell Mackenzie, the well-known London laryngologist and author of "Frederick the Noble".

VON BERGMANN is best known for his introduction of aseptic surgery, the principles and practice of which he described at the Tenth International Medical Congress held at Berlin in 1890 in conjunction with his assistant C. S. Schimmelbusch, whose work on the subject is a surgical classic. Von Bergmann also made a valuable contribution to the literature of military surgery by his works on injuries to the head and brain and gunshot wounds of the knee-joint. In association with Profs. von Bruns of Tübingen and Mikulicz of Breslau, he edited a handbook of practical surgery, of which the first edition appeared in 1900. He took an active part in the promotion of post-graduate study and was the founder and moving spirit of the Berlin ambulance organization. He was the recipient of many honours both in Germany, where he was given the title of Excellency and made a member of the Prussian House of Lords, and in other countries including England, where he was elected in 1900 an honorary fellow of the Royal College of Surgeons. He died at the age of seventy years on March 25, 1907, and was succeeded in the chair of surgery at Berlin by Prof. August Bier, who celebrated his seventy-fifth birthday on November 24.

Alexander Neckham (1157-1227)

IN his Friday evening discourse at the Royal Institution on December 4, Sir Stephen Gaselee discussed "Natural Science in England at the End of the Twelfth Century". It was impossible to survey all the English writers who were treating of natural science about A.D. 1200, but there is fortunately one who was widely read and a good compiler, and at the same time a personal observer of Nature—Alexander Neckham, born in 1157. He was born at St. Albans; afterwards he was headmaster of a school at Dunstable, and also studied in Paris. He later joined the Augustinian Canons at Cirencester, where he spent the rest of his life, becoming their abbot in due course, and died about 1227. He was an author of many and various works: one is called "Of the Natures of Things", and is partly a compilation from Pliny, Solinus and Cassiodorus; but is not without evidence of his own personal investigations. There is continuous moralizing throughout the book; but in natural science he begins with a description of the firmament, the sun, moon and stars; then the four elements; and then starts a survey of the animal world, beginning with

birds. He intersperses his scientific descriptions with anecdotes, sometimes amusing, as of those of the hawk and the eagle, the parrot, and the wren. Turning to fishes, he first refers to some of the physical properties of water and then describes the inhabitants of the deep with a story about the plaice: fishes finished, he describes minerals, with an interesting account of the properties of the loadstone, and vegetables: and then the animal kingdom, with amusing stories about weasels, monkeys and lions: and finally comes to the 'lord of creation', man; after a talk of light and mirrors, he describes the purports of the farm-yard and the dwelling house, with an interesting discussion on silk-worms, and incidentally mentions education and the universities of his day.

British Association: Officers for 1937

THE annual meeting of the British Association will be held next year in Nottingham on September 1-8 under the presidency of Sir Edward Poulton. The following sectional presidents have been appointed: Section A (Mathematical and Physical Sciences), Dr. G. W. C. Kaye; B (Chemistry), Dr. F. L. Pyman; C (Geology), Prof. L. J. Wills; D (Zoology), Prof. F. A. E. Crew; E (Geography), Prof. C. B. Fawcett; F (Economics), Prof. P. Sargent Florence; G (Engineering), Sir Alexander Gibb; H (Anthropology), Dr. J. H. Hutton; I (Physiology), Dr. E. P. Poulton; J (Psychology), Dr. Mary Collins; K (Botany), Prof. E. J. Salisbury; L (Education), Mr. H. G. Wells; M (Agriculture), Mr. J. M. Caie.

Peking Man: Further Discoveries

RECENT excavation in the cave of Choukoutien, the home of Peking man, has proved fortunate beyond all expectation. No less than three new skulls of *Sinanthropus* have been added to the relics of this primitive type of early man. On October 22, Mr. L. P. Chia, of the National Geological Survey of China, brought to light a left mandible with teeth pronounced to be male in type, to which Sir Grafton Elliot Smith refers in a letter to *The Times* of December 5. This was followed by the discovery by the same excavator of two skulls (*The Times*, Nov. 20) and to this in turn has succeeded a further discovery of another skull, which, if the description given in the dispatch from the Peiping correspondent of *The Times* of December 8 be accepted as accurate, may well prove of even greater significance than the earlier finds of new material. With the two skulls previously known, of which the first was found by Mr. W. C. Pei in December 1929, there are now five skulls of *Sinanthropus pekinensis* in existence, while a sixth has been reconstructed from fragmentary finds by Prof. Franz Weidenreich, the director of the Cenozoic Research Laboratory of the Geological Survey. The new material is of outstanding importance in view of the fact that the skulls are those of fully developed adults, whereas the two skulls previously known were those of adolescents. Of the skulls recently discovered, the first two are of a male and a female, in age between forty and fifty years. Added evidential

value attaches to the third skull owing to the fact that it is in a more complete state of preservation than any previous specimen. Certain parts of the base of the skull missing in the other skulls are here present, as well as parts of the facial skeleton and nasal structure.

Significance of Peking Man

THE relics of Peking man available for study at the Peiping Union Medical College, together with the new skulls, represent twenty-four individuals, and include twelve lower jaws and nearly one hundred teeth. They fully justify the description of them by Prof. Weidenreich as the "richest and most complete collection of human fossils ever recorded, unique in every respect" (*The Times*, Nov. 25). Since Prof. Weidenreich's appointment to the Rockefeller Institute, constituting him Director of the Cenozoic Research Laboratory in succession to the late Dr. Davidson Black—an appointment made on the recommendation of Sir Grafton Elliot Smith, as the latter now reveals in his letter to *The Times*, where, however, by a clerical error the name appears as "Weideman"—he has naturally devoted much time and attention to the study of Peking man, and in a recent publication (see NATURE, 173, 73) has put forward some interesting and suggestive conclusions as to the relation between *Sinanthropus* and Mongolian man, while further important results have accrued from his comparative studies based more particularly on the examination of the endocranial casts (NATURE, Oct. 17, p. 689). With this additional important material at his disposal, illuminating studies may be anticipated. While it is too early, and too little information is available, to attempt any forecast of the direction in which results are likely to tend, it is interesting to note that it is stated that the female skull has many similarities to *Pithecanthropus*, while the male skull is much higher and nearer Neanderthal man. Further, Prof. Weidenreich is reported to have said that the various specimens of Peking man form links between *Pithecanthropus* and Neanderthal man. Sir Grafton Elliot Smith's letter to *The Times*, relying on information supplied by Mr. W. C. Pei, now superseded, expresses some anxiety as to the future of these investigations. Clearly, in view of the importance of the material now awaiting examination, any serious interruption or even break in continuity would be a catastrophe.

British Launderers' Research Association

EXTENSIONS to the laboratories of the British Launderers' Research Association were opened by Sir William Bragg on December 1. Mr. W. H. Markham, chairman of the Association, mentioned, in his introductory remarks, that the recent extension of the basis of membership of the Association has met with a good response from the industry, and also that, with an increase of the maximum grant received from the Department of Scientific and Industrial Research, the income of the Association in the coming year will exceed £10,000. The Association,