

Upon his retirement, Prof. Sexton became Minister of the New Church at Jersey, and afterwards held a similar appointment at Liverpool and Northampton. He gave up the latter post in 1923 and returned to Jersey.

#### PROF. W. W. KEEN

PROF. WILLIAM WILLIAMS KEEN, who died on June 7 at the age of ninety-five years, gained his reputation as a surgeon during the American Civil War, and for a period of more than fifty years thereafter was recognised as the most outstanding figure in American surgery. He was a contemporary of Oliver Wendell Holmes, and like him had uncommon gifts of personality and scholarship. His textbook on surgery enjoyed a world-wide reputation for many years, and made his name known far beyond the University of Pennsylvania, in which he taught, and the city of Philadelphia, in which he practised.

Dr. Keen was one of the first to adopt and apply to surgery the principles and practice of Listerism. He was a scientific surgeon in so far as it is yet possible for a surgeon to be guided by scientific principles, and although the author of innumerable contributions to surgical literature, all of which added something to the subject dealt with, yet it was his personality and general proficiency rather than his originality in any particular field which gave him the high place he enjoyed for so many years.

Dr. Keen recognised that surgery depended for its advance on the growth of the basal subjects of medical education, particularly of experimental physiology, and never wearied in his defence of vivisection and of temperance. Like the late Sir William Osler, he was a bond between the medical professions of the United States and of Great Britain.

WE regret to announce that Miss Adelaide Ames, research assistant in the Harvard Observatory, was drowned in a canoe accident in Squam Lake, New Hampshire, June 26, at the age of thirty-one years. Her scientific work, thus suddenly ended, had already gained for her a wide recognition. She was a member of the Commission on Clusters and Nebulæ of the International Astronomical Union. For several years Miss Ames had carried on investigations in the field of extra-galactic nebulæ, her principal publications dealing with the Coma-Virgo cloud of galaxies. Her most important work was in connexion with a photometric survey of all extra-galactic objects to the thirteenth magnitude—a census of the inner parts of the metagalaxy to a distance of five to ten million light-years. This survey was completed in June and will be published during the next month in collaboration with Dr. H. Shapley.

WE regret to announce the following deaths:

Dr. Geo. K. Burgess, director of the U.S. National Bureau of Standards, and treasurer since 1924 of the National Academy of Sciences, on July 2, aged fifty-eight years.

Prof. Matthew Hay, emeritus professor of forensic medicine in the University of Aberdeen, formerly medical officer of health for the city, on July 30, aged seventy-six years.

Prof. John R. F. Sebelien, formerly professor of chemistry in the Agricultural College, Aas, Norway, known for his contributions to the chemistry of milk and dairy feeding and artificial manures, aged seventy-four years.

Sir William Willcocks, K.C.M.G., the distinguished irrigation engineer whose name is associated with the Assuan dam and the Assiut barrage in Egypt and with irrigation work in Mesopotamia, on July 28, aged eighty years.

## News and Views

### Dr. P. A. M. Dirac

DR. P. A. M. DIRAC, of St. John's College, Cambridge, has been appointed to succeed Sir Joseph Larmor when he vacates the Lucasian chair of mathematics at Cambridge on Sept. 30 next. Dr. Dirac has been one of the most notable of the group of young physicists (mostly within a year or two the same age) who have, during the past seven years, created quantum mechanics. After graduating at the University of Bristol both in engineering and in mathematics, he entered the University of Cambridge as a research student in the Faculty of Mathematics, and may perhaps not unreasonably be accounted fortunate in his time, for he was in the middle of his course for a research degree when the ferment of dissatisfaction with the limitations of the older quantum theory was at its height, and the great blaze of theoretical advance was set alight by Heisenberg's first paper of the autumn of 1925. Dr. Dirac was one of the first to see clearly how the new ideas were to be extended and formalised, and his own researches have played a great part in both these processes, especially in formalisation.

His unpublished degree thesis was probably the first such attempt to present in any detail in a consistent and logical way the revolutionary new theory. Later he published a much expanded and revised form of this attempt in his well-known book on quantum mechanics. His most strikingly original and successful contribution to the whole theory is his relativistic theory of the electron, a contribution in which his great mastery of and instinct for form has guided him at once to the correct generalisation. Dr. Dirac will succeed to the Lucasian chair when he is just over thirty years of age, with the acclaimed consent and good wishes of all his colleagues in mathematical physics in Great Britain. His University may look forward to another long and distinguished tenure of a chair to which long and distinguished tenures are by no means unfamiliar.

### New Skull from South Africa

PROF. DUBOIS' comment on the skull recently discovered at Ngandong, Java, and its relationship to Rhodesian man, which appeared in NATURE for July 2,

p. 20, enhances the interest with which anthropologists will await further particulars of the human skull which, it is announced, Prof. T. F. Dreyer, of Grey University College, Bloemfontein, has discovered at Florsbad hot springs. According to a message in the *Times* for July 27, Prof. Dreyer has found parts of a human skull and a tooth, associated with stone implements of a primitive type and the remains of extinct fauna on this site, which lies twenty-five miles north of Bloemfontein. The lower jaw is missing, but, it is said, most of the facial bones are present. The character of the skull cannot be determined with certainty until the base has been found; but Prof. Dreyer is reported to be of the opinion that it is that of either Neanderthal man or Rhodesian man. According to the measurement of the skull "over the eyes", it would hold a place intermediate between the two, the figure given being 130 mm., as against the maximum in Neanderthal man of 125 mm. and 139 mm. in Rhodesian man. These figures, slender evidence as they are, are certainly suggestive of the possible significance of the new find in relation to the affinities of early types of man in South Africa. Should it appear eventually that the skull is a second specimen of Rhodesian man, its association with stone implements and extinct fauna should provide the much desired evidence indicating the geological age and the culture of that remarkable type of primitive man.

#### Exhibition of British Archæology

AN exhibition illustrative of recent field-work in British archæology was arranged at the London Museum in connexion with the International Congress of Prehistoric and Protohistoric Sciences which met in London on Aug. 1-6. Its primary object was to afford visitors from abroad some idea of the range and value of the material which archæological investigation in Great Britain is adding to the study of prehistoric and early historic times; but it was also intended to interest and inform other visitors to the Museum whose acquaintance with archæological studies might not be sufficiently intimate to keep them abreast with the activities of our research workers in the various provinces of the subject. The exhibits ranged from the pre-palæolithic discoveries of Mr. Reid Moir in East Anglia to the objects of late Saxon and Viking times from districts so far removed from one another as Durham and Dorset. The choice of sites illustrated was discriminating and the number of objects shown kept as low as possible, consistently with the aim of making the exhibition representative. It is, therefore, difficult to single out any one or two exhibits as especially worthy of note. Colchester and Verulamium naturally figured prominently, as also did Mr. A. Keiller's exhibit from the Windmill Hill site. No doubt many visitors were glad to avail themselves of Mr. Keiller's offer of admission to view the complete collection of finds shown at Charles Street, Berkeley Square. The interest of the exhibition was much enhanced by the magnificent series of photographs from the air of various classes of site which was lent by the Ordnance Survey and described in an admirable catalogue. An excellent descriptive catalogue was also prepared for the archæological

exhibits. Probably it will be a long time before so completely representative a collection, drawn from widely distributed places of permanent exhibition, will be gathered together again.

#### Methods in Anthropometry

FOR a considerable period it has been apparent that the time was ripe for a measure of revision of the methods of anthropometry, although caution was enjoined by a not unnatural reluctance to take any steps which might lessen the value, for comparative purposes, of thousands of measurements taken by generations of anthropologists in the field and laboratory. The feeling of dissatisfaction with existing methods, however, both among British and Continental anthropologists, was sufficiently strong to warrant discussion; but it cannot be said that anything practical had emerged until recently, when certain suggestions were put forward jointly by Miss M. L. Tildesley, Dr. E. G. Morant, and Dr. L. H. Dudley Buxton as a report to the council of the Royal Anthropological Institute. Briefly, these suggestions are that for the moment there should be an agreed abbreviated technique of observations in anthropometry, confined to the racial characters of adults of both sexes; and that this should be determined and elaborated as required by an international committee. But it is put forward as a first step that a technique should be formulated for Great Britain and Ireland; and at the same time representative bodies in other countries should be invited to do the same for their areas, with the view of international discussion later. The proposal, with further suggestions as to detail, will be found in *Man* for July. While this courageous attempt to deal with a difficult situation scarcely calls for comment at the present stage, it may be pointed out that without an assurance of external support the proposal risks a great deal of wasted effort. British anthropologists cannot work in isolation, however considerable the proportion of their output in the world of anthropometric science may be.

#### Changes in Scientific Outlook

SIR OLIVER LODGE on March 17 gave the oration at the thirty-sixth Foundation Week at University College, London. It was well received at its delivery, and is well worth reading in its published form (University of London Press, 1s. net). Sir Oliver is now so generally accepted as the best exponent of a tolerant, humane, and comprehensive way of regarding science that when he speaks, as he did, on "Changes in Scientific Outlook", he might expect an attentive audience. The address was eloquent, impressive, and highly stimulating to thought, but it scarcely covered the matter which the title would lead one to expect. There is little or nothing in it of the latest developments in science, the extension of specialisation, the connexions of astrophysics with laboratory work, the exploration of the border-line problems between animate and inanimate. Sir Oliver practically confined himself to the one issue which in his view outweighs in ultimate importance all the others, and the address might well be called "A Plea