

News and Views

R. W. Paul: Award of Duddell Medal

THE Duddell Medal of the Physical Society has been awarded to Mr. Robert W. Paul, who is known as a pioneer in two distinct industries, namely, the manufacture of electrical measuring instruments and the development of the cinematograph. Mr. Paul started on his own account as a maker of electrical instruments at 44 Hatton Garden in 1891, and with the collaboration of many of the chief electrical engineers of the day, produced a series of instruments which found their way into the majority of the electrical laboratories of the world. Amongst these may be mentioned the Ayrton-Mather galvanometers, electrostatic voltmeters, etc. The inductometers and other instruments designed by Albert Campbell introduced to industry instruments capable of measuring high-frequency currents to an accuracy previously unobtainable. In 1903 he invented the Unipivot galvanometer with which his name has been closely associated. The simplicity, robustness and high sensitivity of this instrument appeal to all users of galvanometers, and it still remains a popular instrument. During the Great War Mr. Paul assisted in the development of anti-aircraft height-finders and also of anti-submarine devices. In 1919 Mr. Paul's business was incorporated with the Cambridge Scientific Instrument Co. under the title of the Cambridge and Paul Instrument Co., later changed to the Cambridge Instrument Co.

MR. PAUL is also known as one of the pioneers of the cinematograph. Next to Edison he did more to develop the 'kinematograph' or 'theatrograph', as it was then called, than any other individual. His projector was first shown in operation at an entertainment at the Finsbury Technical College in February 1896; his form of intermittent motion for feeding forward the film is still employed. For many years Mr. Paul exerted himself to improve the training of young instrument makers, and it was on his initiative that the apprentices' or learners' section was introduced into the annual exhibition of scientific instruments held by the Physical Society. Finally, in very recent years, he has turned his skill in co-operation with Sir William Bragg, to the humanitarian task of making a practicable device for continuous artificial respiration. This apparatus has already saved the lives of many sufferers from infantile paralysis.

Man and Mammoth in America

IN a preliminary statement issued by the Smithsonian Institution, Washington, Dr. F. F. H. Roberts, jun., reports that in the course of last summer, his fifth season of excavation of the camp station of Folsom man on the now famous Lindenmeier site in northern Colorado, he recovered a large number of bones of the animals which formed the food of Folsom man, together with several new types

of knives and scrapers, but all unquestionably showing signs of Folsom workmanship. Bones engraved with geometrical designs were again found, but none showing any attempt at either picture writing or the representation of animal forms. Associated with the implements was the tusk of a mammoth. Although remains of the mammoth have been found in association with relics of Folsom man in New Mexico, this is the first indication of its presence on the Lindenmeier site.

DR. ROBERTS has also made a reconnaissance in two other regions, one near the town of Sundance in Wyoming, the other near Mortlach in Saskatchewan. The first yielded a number of the so-called "Yuma" points, long, slender, but heavy projectile points, or spear-heads, which are believed to bear some relationship to the Folsom point, but no evidence of Folsom man was found. In Saskatchewan, a site in the midst of the Canadian dust bowl was investigated. A few Folsom points were found, but the majority were of the Yuma type. Unfortunately, owing to the conditions of the soil, in which all heavy artefacts work down to the bottom of the deposits, no evidence of stratification was obtainable. Nevertheless this result is of considerable importance. A few scattered points have been reported from time to time on the Great Plains extension into Canada; but this is the first concentration of these nomad hunters to be reported so far north. The bearing of the find on the question of the antiquity of man in North America is at present obscure, as there is no evidence to show whether these points are a relic of the entry into America, or of the period when man was following the retreat of the ice sheet. Until it is agreed whether the Yuma point is pre- or post-Folsom, it affords no guidance.

Antiquities from London for Tasmania

AT an early date Tasmania will receive from the Corporation of the City of London a gift of a number of antiquities found within the boundaries of the City. This gift is made under a scheme of the Corporation for promoting in the Dominions and Dependencies an interest in the past history and culture of the central city of the Empire. The collection for Tasmania, which will be housed at Hobart, will include, according to a list given in *The Times* of December 22, some one hundred and forty objects, classified under sixty-eight headings, illustrating daily life in London throughout the centuries from Roman to medieval times. About one half of the objects belong to the Roman period. Among them are coins of eight emperors, bone pins and needles, bone and bronze spoons, knives, iron nails and wooden writing tablets. Among the pottery objects is an example of the work of Eucarpus, a lamp-maker working in London at about A.D. 100, many of whose lamps have been found. There is also a mixing bowl