

Max Oertel

MAX JOSEF OERTEL, one of the most eminent and versatile German physicians of the second half of the nineteenth century, was born at Dillingen in Bavaria on March 20, 1835. He first studied under Prof. von Pettenkofer at Munich, where he made a considerable number of analyses of the air in various public institutions and private houses which he published in a work entitled "Experiments on the Accumulation of Carbonic Acid in Inhabited Localities". Afterwards he devoted himself to the study of diseases of the throat, including diphtheria, on which he published some of the most important articles on the causation of the disease prior to the discovery of the Klebs-Loeffler bacillus. His other works on diseases of the throat were concerned with tumours of the larynx, instruction in laryngology, and treatment of respiratory affections. Oertel was the first physician in South Germany to lecture on laryngology, and was appointed extraordinary professor of laryngology at Munich in 1876, which office he held until his death on July 19, 1897. He was also well known as a general physician and particularly for his treatment of diseases of the heart, in which he paid special attention to diet and exercise.

Award of the Duddell Medal to Dr. W. E. Williams

THE council of the Physical Society has awarded the twelfth Duddell Medal to Dr. W. Ewart Williams, lecturer in physics at King's College, London, who is distinguished for his work in optical design, chiefly in the region of interferometry. The Medal is given to "persons who have contributed to the advancement of knowledge by the invention or design of scientific instruments, or by the discovery of materials used in their construction". The principal invention of Dr. Williams is that of the reflection echelon spectroscope. The basic idea of such an instrument was described by the late Prof. Michelson nearly forty years ago, but its practical construction seemed impossible until the discovery by Williams that two optically plane surfaces of quartz or fused silica could be placed in permanent optical contact without exerting the mechanical force needed with glass surfaces. He saw that a number of fused silica plates of exactly equal thickness could be built up in the necessary echelon formation without introducing any distortion that would ruin the optical performance of the instrument. The reflection echelon is the only form of spectroscope of sufficient resolving power which can be used in the ultra-violet part of the spectrum, where, in a number of cases, lie the lines of greatest interest from the point of view of 'fine structure', a detailed study of which gives us information about the structure of the nucleus in its normal state.

By adding two small mirrors to the echelon and mounting it in an evacuated chamber, Dr. Williams has adapted the instrument, originally meant for fine-structure work only, for the accurate measurement of the wave-lengths of the lines. In consequence of

the far greater resolving power now available, the wave-lengths of the lines can be measured with a corresponding greater degree of accuracy, and the method of calculation is far simpler and more rapid than with the Fabry-Perot interferometer. He has also devised a method of standardising the metre in terms of wave-lengths by means of the reflection echelon. This permits the number of wave-lengths contained in a gauge of approximately a metre length to be determined in two operations, as distinct from the numerous stages involved in the present methods. The principle of the reflection grating has been also applied by him to directional aerial systems for short-wave wireless transmitters, which are being used in America, and he has improved a number of optical instruments, amongst which are the Rayleigh refractometer and (in conjunction with Mr. F. Twyman) the Fabry-Perot interferometer.

National Inland Water Survey

IN the discussion which followed the reading of Dr. Brysson Cunningham's Paper on National Inland Water Survey, a summary of which appears on p. 443 of this issue, Vice-Admiral Sir Percy Douglas, the chairman of the British Association Research Committee on the subject, described the work of the Committee subsequent to the date of the reception of the deputation by the Minister of Health, and expressed the gratification which he felt at the unanimous agreement of the members of the Committee on a draft outline of the scope of the survey which had been drawn up and forwarded to the British Association, and which he hoped would be recorded in the *Geographical Journal*, for which purpose he read the several items. Dr. H. R. Mill spoke of the association of the Royal Geographical Society with water survey, and alluded in particular to the observations made on the Exe and the Medway with which he had been connected. Sir Henry Lyons, chairman of the new Survey Committee, welcomed the interest taken in the matter, and said that as his Committee had only just met quite recently for the first time, it would be premature at present for him to express any views on the course of action which he and his colleagues might decide to take. Capt. W. N. McClean described the more important features of River Flow Records, and showed how he had built up an organisation which he considered might be of great assistance in the work of river and stream gauging. Mr. G. J. Griffiths, chief engineer of the Thames Conservancy Board, emphasised the value of river flow records and the advantage which had accrued from having prolonged observations at Teddington and elsewhere; he considers a national survey to be long overdue. Dr. Bernard Smith dealt with the importance of observations relating to underground water and the necessity of prosecuting researches thereon in all practicable directions.

Preservation of Sites of Scientific Interest

THE British Association has recently been receiving from the Ministry of Health information of all schemes in progress under the Town and Country Planning

Act, in order that if any of these should disclose any risk of the destruction of sites or objects of scientific interest, representations may be made on behalf of the Association to the planning authorities and to the Ministry. In addition to natural features, or possibly buildings, which may be worthy of preservation on scientific grounds alone, it is clear that there must be many areas worthy of protection on grounds of amenity, and at the same time of sufficient scientific interest, whether geological, botanical or otherwise, to justify adducing arguments from the side of science in their favour. The first step taken by the Council of the Association was to communicate with all the local societies in correspondence with the Association, inviting their attention to the subject of planning and asking for information on any instances in which the Association might usefully take action: only a few have as yet come to hand. The whole subject will come under consideration at the Norwich meeting of the Association, when it will be dealt with by Prof. P. G. H. Boswell in an address as chairman of the Conference of Delegates of Corresponding Societies. Meanwhile the Council has appointed a panel of some sixty prominent members representative of geology, geography, botany and zoology, any of whom may be called upon for advice in connexion with proposals for preservation, and all of whom have been asked to bring to the notice of the officers any examples which may have come under their personal notice.

Roman Villa near Lydney

A NEW Roman villa on the River Severn near Wollaston, between Lydney and Chepstow, of which the discovery and partial exploration is described in *The Times* of March 8, illustrates the perennial character of the human response to an enduring need. A fire-platform and lighthouse in alignment mark the channel through the Guskar Rocks guarding the creek, on which the villa is situated, in a manner which might stand in a modern sailing direction. Before the examination of the site the existence of the creek, which had silted up, was indicated only by a stream in a depression; but evidently it must have been, with Lydney harbour, a port of call of importance, probably in relation to the iron-workings of Ariconium (Weston-under-Penyard) to the north. In any event, the villa with its sea-frontage was not only the centre of a wide settlement, still unexplored, but it is remarkable also for the unusual amount of iron it has yielded among its relics. The earlier villa, upon which a second was superimposed, was erected about A.D. 130 in the reign of Hadrian. It stood about 250 yards from the shore. It was of considerable size and contained nine rooms and a corridor and had a bath system along the sea front. One hundred and seventy years later it was destroyed, possibly, it is thought, by an Irish raid. After a lapse of twenty years, the second, a smaller building, was erected. It contained only four rooms, but it also had a bath system. This villa lasted for about a century. The details of the buildings and the associated relics have provided a number of noteworthy features, and

the further examination of the site, which depends, as usual, upon funds being raised, will undoubtedly well repay the expenditure of time and money.

Irish Folk-lore

THE appointment by the Irish Free State of a Commission on Irish folk-lore is an extension of the active interest already shown by the authorities in the antiquities and history of Ireland that will be welcomed by all students of her traditions and ancient culture. The Commission is to be comprehensive in scope. It will arrange for the collection, collation and cataloguing of both oral and written folk-lore material, and also, if thought desirable, for the publication of such material. The scheme for collection which has been drawn up includes provision for a body of collectors who will travel through the country for the purpose of taking down by means of recording machines not only tales and songs, but also, among the older members of the community, their recollections of life in the country-side in their young days. Subject to the approval of Dail Eireann, a sum not exceeding £3,250 a year, for a period of five years, will be devoted to the work of the Commission. Although Ireland, in comparison with other parts of the British Isles, has not been badly served in the matter of attention from the collector of local lore and legends, it has always been known that extensive tracts of tradition and custom remained untouched; and notwithstanding the sophistication which has affected Ireland in common with other countries of recent years, the remoter districts still retain much of their primitive character and tradition. In addition to its work of collection, the Commission's activities will afford an opportunity for that systematic treatment of the material for which adequate opportunity has not hitherto been available, but which in dealing with conditions in Ireland is highly desirable.

British Museum Acquisitions

AMONG the notes on recent acquisitions by the British Museum in the *British Museum Quarterly*, 9, No. 3, particulars are given of sources from which came part of the sum required to make up the initial payment for the Eumorfopoulos collection of Chinese and Far Eastern art, and progress is reported in the allocation of the collection to Bloomsbury and South Kensington. A contribution of £5,000 was received from the National Art Collections Fund, £5,000 from Sir Percival David and £1,000 from the Universities' China Committee in London. The bequest to the British Museum and the Victoria and Albert Museum of three quarters of the residue of the estate of the late J. R. Vallentin for the purchase of works of art for the two museums was also allotted to this use. It is stated that the collection is so large that it will be possible to place a certain number of pieces on loan in some of the leading provincial museums. When, however, the scheme for a Museum of Oriental Art comes into being, it is intended to recall these loans, and the whole collection will be brought together again to form an important part of what, it is hoped, will be the finest museum of oriental art