## Current Topics and Events.

THE satisfaction that has been expressed with the recommendation that the Imperial Institute should be maintained at South Kensington is accompanied with a still wider regret that the collections are to be abolished to make room for the War Museum. The Committee which has made these recommendations appears to regard the collections as of use only as trade samples and accepts the view that those at the offices of the Australian agencies in the Strand are more useful. The Imperial Institute collections, however, are much wider in their scope. The Imperial Conference urged the need of extended teaching of the geography of the Empire, and the Imperial Institute collections are unique as an illustration of the life, resources, and scenery of every country within the Empire. It is the only collection in Great Britain which can be compared with the geographical museums of Germany. The Institute is naturally of less value to the great Dominions, which can afford well-equipped research departments and show rooms in the centre of London, than it is to the smaller colonies and dependencies. Hence Australia in pre-War times contributed to the Institute only 500l. per annum against 1000l. given by Ceylon. The smaller dependencies, and especially those in the tropics, are in increasing need of the help that may be given by an Imperial co-operative organisation. Emphatic testimony to the educational value of the galleries is quoted in the minority report, in which New Zealand offers an increased subsidy if they be maintained. The collections are also condemned on the ground that they are only of value to people in London, a drawback shared by all national metropolitan institutions. The leasing of the galleries is recommended as a means of raising 8000l. per annum for the general revenues of the Institute. For this amount costly collections made and presented by governments and individuals are to be scrapped, and a building largely raised by private subscriptions, and the site given by the Commissioners of the 1851 Exhibition for an Imperial scientific institution, are to be handed over to a War Museum. Mr. H. M. Lidderdale, Secretary to the executive council, has been appointed Acting Director pending the reorganisation of the Institute.

THE Times in its issue for November 28 publishes a very interesting photograph showing the eggs of a deinosaur against their natural background; in fact, they can scarcely be said to have been removed from the beds in which they were so happily preserved. The discovery, made by Mr. Roy Chapman Andrews when exploring a desert region in Mongolia for the American Museum of Natural History, has excited much interest among naturalists, and it is now authoritatively announced that surplus specimens, after complete examination and description, will be disposed of for about 400l. apiece. This price cannot be regarded as excessive, and the sum realised will be used towards defraying the expenses of the expedition. When placed on exhibition in a public museum, the egg should certainly be accompanied by a copy of the photograph utilised by the Times,

showing its companions practically in situ. By that time, the scientific report on the occurrence will be available, and will no doubt contain all necessary illustrative material. The relationship of the deinosauria to the crocodiles and to the birds makes the discovery of their eggs not in itself surprising; but the fact that one egg at least contains an embryo furnishes hope for the revelation of new links in the chain of reptilian descent. Public interest should now be still further attracted to the fine collection of deinosaurian remains in the Natural History galleries of the British Museum at South Kensington, and to the admirable guide recently issued in connexion with them (see NATURE, April 29, 1922, p. 561). We can already conceive a wall-painting in the American Museum of Natural History, depicting the Gobi region in Mesozoic times, with a maternal deinosaur affectionately bringing up its young.

Among the scientific bequests of the late Hon. N. C. Rothschild, whose death was referred to in NATURE of November 10, p. 697, those relating to the distinguished naturalist's great collection of Siphonaptera, or fleas, are of special interest not only to entomologists, but also to students of insect-borne disease. Including as it does some 40,000 specimens of fleas in alcohol, and 3550 microscope slides, representing in all about 600 species, the collection must prove of priceless value to all who in future years desire to investigate questions connected with the epidemiology of bubonic plague, and its transmission by various species of fleas. Although actually presented to the Trustees of the British Museum in 1913, the collection was, by arrangement, allowed to remain temporarily in the possession of its founder: and even now a further period will elapse before the specimens, which occupy eight large cabinets, are finally installed at South Kensington. During the interval, the catalogue of the collection, which will include an illustrated description of every species represented in it, will be completed by Dr. K. Jordan, the value of whose work on Siphonaptera, as collaborator with the late Mr. Rothschild, has obtained world-wide recognition. To provide for the permanent maintenance of the collection, Mr. Rothschild has left to the Trustees of the British Museum 10,000l, upon trust, in order that the income thereof may be utilised to pay the salary of a qualified custodian. In the testator's will, the request is made that Mr. F. J. Cox, his assistant, should be employed in the latter capacity. Mr. Cox is known to possess a wide knowledge of Siphonaptera, and it was by him that, at the instance and expense of Mr. Rothschild, the small collection of fleas already belonging to the Museum was catalogued and arranged some years

It is rumoured, but we hope without foundation, that a suggestion has been made to the Albanian Government that exclusive rights of excavating in Albania should be assigned to French archæologists, with possession of a considerable proportion of the finds. Although no one would wish to question the

right of the Albanian Government to make such arrangements as it thinks best for the investigation and preservation of the antiquities of that country, such a course as is proposed cannot, on the face of it, be considered in the best interests of science. It is not intended to cast any reflection upon the ability or disinterestedness of the archæologists of France or any other country; but scientific investigation should be free from the trammels of nationality. The position in the Balkans is already one of some difficulty, as recent legislation in Greece has restricted the number of excavations which will be permitted to the Schools of Archæology beyond those already in being, while in Serbia concessions for excavation are not to be granted at all to foreigners. In view of the great importance of the whole Balkan area for archæological studies, any further restriction, such as this proposal to confine excavation in Albania to scientific workers of one nationality only, would be peculiarly unfortunate.

A NECESSARY consequence of any increased interest in, and consideration of, science and scientific workers by the general public will be an examination of the part that science has played in producing the bad, as well as the good, features of modern civilisation. It is natural that the advance of science in penetrating the mysteries of the universe, or its essential part in promoting the development of material resources and making possible mechanical production of commodities necessary for peace or war, should be a satisfactory subject of contemplation to the scientific worker. But the public will not only ask about the responsibility of men of science for the development of fertilisers or of poison gases, but also what they think is the relation between the present possible level of productivity and the present destitution in every civilised state. Prof. F. Soddy anticipated such questions as these in his "Cartesian Economics" lectures, and he developed them in a lecture entitled "The Inversion of Science," given at the Guild House, Eccleston Square, on Thursday, November 29. He pointed out the strange coincidence of the perfection by James Watt in 1774 of the steam engine which was to revolutionise all the methods and possibilities of production, and the elaboration in 1776 by Adam Smith in "The Wealth of Nations" of a system of economics founded on the conditions prevailing in the pre-scientific stage of society, which has nevertheless continued to be applied, with the result of an almost unlimited capacity for production that cannot be exercised because of a completely erroneous standard of values. Prof. Soddy held that wealth must cease to be reckoned by any artificial standard, whether of gold or of the arbitrary judgment of financial magnates, and be calculated on the actual or potential production of the necessities of life.

During the War many unsuccessful experiments were tried to bring to a stop from a distance motor cars or aeroplanes. According to an announcement in *La Liberté*, a French engineer has given practical proof of an invention that enables him to stop the motors of an aeroplane or a motor car at a distance

of about 50 yards. It is quite possible that the emission of very strong Hertzian waves might interrupt the proper functioning of magnetos at this distance, but we cannot infer that it would be equally simple to stop the motor of an aeroplane in full flight at a distance of a few miles. In any event the problem of protecting the magnetos of the motors from interference by suitably screening them would be an easy one.

The transmission of a broadcast programme across the Atlantic by the British Broadcasting Company in the early hours of November 26 was a fairly successful one. From 3 to 3.45 A.M. the B.B.C. sent out a concert from London on its normal wave length and power. This was broadcasted again simultaneously by the other British stations, each on its own wave length. All the stations, with the exception of Birmingham, Manchester, and Aberdeen, were clearly heard in America. During the winter months transatlantic telephony and broadcasting is generally successful during night-time. During the early hours of November 27, American stations broadcasted. Several of them were heard in different places in Great Britain, but the atmospherics unfortunately were very much in evidence and so the experiments could not be regarded as successful. On December 22 the Radio Society of Great Britain will make experiments, in conjunction with American amateurs, between 1 and 3 A.M. The G.P.O. has given permission to some amateur stations to increase their normal power (10 watts) to 1000 watts for these tests.

WE regret to note an announcement in the December issue of *Discovery* that this number is to be the last to appear. All who are interested in the spread of a knowledge and appreciation of the results of scientific investigation among the general public will regret the disappearance of this publication. Since it was founded in 1920, Discovery has consistently maintained a high standard of scientific accuracy, and has placed before its readers in clear and non-technical language a large number of articles, necessarily varying considerably in merit, which were selected with the express intention of keeping readers abreast of the latest movements of thought in the scientific world. It was started under favourable auspices at a time when the events of the War had impressed upon the public mind the value of scientific research from a practical point of view. Its committee of management consisted of representatives of the most important of the scientific and learned societies, and amongst its contributors it has numbered some of the most prominent of the scientific men of the day. Yet notwithstanding these facts, and notwithstanding a wide appreciation of its merits as a popular scientific publication, it has failed through lack of public support.

It was stated in our issue of December 1, p. 803, that the Science Collections from the Western Galleries of the Science Museum, South Kensington, had been removed to three unfinished galleries of the new Science Museum building, and that one of these galleries has now been thrown open to the

In this are the following exhibits: Astronomy: Sundials, astrolabes, and similar instruments, transit instruments, equatorials, astronomical photographs, telescopes, original apparatus and instruments made or used by the Herschels. Surveying: Instruments illustrating the development of the theodolite and level, including Ramsden's threefeet theodolite. Meteorology: Almost the whole section as previously exhibited, with a recent acquisition—a plaster cast of an early Korean rain-gauge. Chemistry: Historical apparatus and specimens, including apparatus of Faraday and Graham; Hartley's original spectrograph; replica of Priestley's original oxygen apparatus; models of chemical works. Optics: Microscopes, telescopes, spectacles, polariscopes, early moving-picture devices. Sound: Early talking machines, including Edison's original phonograph; instruments used in soundranging. Botany: Models of flowers. About eighty per cent. of the Science Collections will be in storage until more space becomes available.

It is announced in the *Times* that 13,000,000 francs (more than 160,000*l*.) was collected for the benefit of French scientific laboratories on the occasion of "Pasteur Day."

Dr. F. W. Willway, J.P., Newfoundland, provides an interesting running comment on the film production "Nanook of the North" at the Polytechnic Hall, London. His talk, based upon personal experience, takes the place of the customary captions and makes more real this untouched and unrehearsed picture story of the actual life of the Eskimos on the west side of Ungava. The musical accompaniment to the closing scene, an Arctic blizzard, enhances the effect so strongly that the impression of desolate brutality lasts long after the vision ceases. Mr. Flaherty's picture is assuredly one to see.

RECENT additions to the National Portrait Gallery include the portraits of three former fellows of the Royal Society, namely:—Sir George Howard Darwin, K.C.B. (1845-1912); Sir Henry Charles Englefield, Bt. (1752-1822); and Mr. Philip Metcalfe (1735-1818).

The Huxley medal of the Royal Anthropological Institute for the year 1923 has been awarded by the Council to Dr. E. Sidney Hartland, the well-known authority on folklore and the author of "Primitive Paternity" and other pioneer works on social anthropology. Unfortunately, the state of Dr. Hartland's health in the earlier part of the year has precluded him from preparing the Huxley memorial lecture, which it is usual for the recipient to deliver on the occasion of the presentation of the medal. The Huxley medal for the year 1924 has been awarded to Dr. Henri Verneau, of Paris, by whom the Huxley memorial lecture for 1924 will be delivered in November next.

Mr. Joseph Barcroft has been elected Fullerian professor of physiology at the Royal Institution in succession to Sir Arthur Keith. M. le Duc de Broglie, Dr. C. L. Guillaume, and Profs. Debye, Einstein, Groth and von Laue have been elected honorary members of the Institution.

The British and Foreign Sailors' Society, Incorporated, The Passmore Edwards Sailors' Palace, 680 Commercial Road, London, E14, supplies Christmas parcels regularly to more than 600 lighthouses and lightships; in addition it maintains 650 ships' libraries afloat, and parcels of literature and magazines are regularly placed by the Society on outgoing ships. Gifts of literature, books, magazines, etc., would be welcomed at the Society's headquarters.

The following officers and committee of the University of Durham Philosophical Society for the Session 1923-24 have been elected: President: Rt. Hon. Earl of Durham; Vice-Presidents: Hon. Sir Chas. A. Parsons, Sir Theo. Morison, Dr. T. H. Havelock, Dr. H. Stroud, Prof. H. Louis, and Mr. W. Hall; Committee: Commander C. J. Hawkes, Dr. H. V. A. Briscoe, Dr. G. R. Goldsbrough, Dr. J. A. Smythe, Mr. S. H. Collins, and Mr. Rhys Thomas; Editor: Dr. G. W. Todd; Librarian: Dr. F. Bradshaw; Secretaries: Mr. J. W. Bullerwell and Mr. B. Millard Griffiths. The second edition of the "Dr. Theodore Merz" Memorial Number of the Proceedings is now in the Press.

AT a meeting held in June last, it was decided to establish a memorial to the late Prof. A. D. Waller and Mrs. Waller in the form of a fund for scientific research to be administered by the Council of the London (Royal Free Hospital) School of Medicine for Women (NATURE, June 16, p. 818). Prof. Waller was also lecturer in physiology at St. Mary's Hospital Medical School for nineteen years, and it is now proposed to establish an additional memorial in the form of a research room, to be known as the Waller Research Laboratory, in connexion with the Physiological Department. A large and distinguished committee of British and foreign scientific workers has been formed to carry out the memorial schemes. Subscriptions marked accordingly if they are intended for the St. Mary's Hospital Medical School memorial, should be sent to the hon, treasurer of the fund, Prof. J. Mellanby, St. Thomas's Hospital Medical School, London, S.E.I.

Mr. W. H. HOFFERT has been appointed by the Council of the University of Leeds to be research chemist to the Joint Research Committee of the National Benzole Association and the University in succession to Prof. E. C. Williams, who resigned his appointment on September 30, on his election to the Ramsay memorial chair of chemical engineering in the University of London. Mr. Hoffert took a first class at Oxford in 1914, in the final honour school of natural science (chemistry), and was also awarded a research scholarship at Jesus College. In 1919 he was appointed to a research fellowship of the Salters' Institute of industrial chemistry. More recently, he has worked as research chemist to a Lancashire firm engaged in the coal tar industry, and has also had experience at H. M. Fuel Research Station, Greenwich. Mr. Hoffert will work in the Department of Coal Gas and Fuel Industries of the University of Leeds, under the supervision of Prof. J. W. Cobb, particularly in connexion with the possibilities of increasing the home supplies of motor spirit from coal.

Prof. A. Smithells resigned in June last the chair of chemistry in the University of Leeds, which he had held with much distinction since, in 1886, he was appointed in the old Yorkshire College. His part in promoting the foundation of the University of Leeds, in bringing technological studies into relation with other work of the University, in furthering chemistry and its technical applications, and in linking up the University with the community it serves, is well worthy of commemoration, and a committee has been appointed to raise funds for this purpose. With the money obtained it is proposed to have a portrait of Prof. Smithells painted for presentation to the University, and to establish in his name, and by his advice, a fellowship or scholarship within the University—two means by which his connexion with the University will be handed down to posterity. Subscriptions, made payable to the treasurer of the Smithells Fund, should be forwarded to Mr. A. G. Lupton, Beechwood, Roundhay, Leeds.

Mr. Paul C. Standley, associate curator of plants in the National Museum, Smithsonian Institution, has left Washington for Panama, where he will make investigations of the plant life of the Canal zone and its immediate vicinity. This work, undertaken in co-operation with the Department of Agriculture, has for its object the preparation of a descriptive and illustrated account of the plants occurring in the region. Botanical exploration of the Isthmus of Panama was begun about 1790 by Luis Née, a Frenchman, who accompanied the famous navigator Malaspina on his voyage around the world. A very extensive collection also was obtained by the Smithsonian Biological Survey of the Panama Canal Zone in 1910-11, and more recent collectors have forwarded to the National Museum noteworthy collections, so that at the present time more than 2000 species of plants are known from the region. From a botanical point of view the Isthmus has not been thoroughly explored, however, and it is probable that further work there will increase this number by 50 per cent. Panama is particularly rich in palms, and has a good representation of orchids and ferns. After spending about two months in Panama, Mr. Standley will go to Costa Rica to make further collections of plants.

In the course of his presidential address to the Institution of Civil Engineers delivered on November 6, Sir Charles Langbridge Morgan had a good deal to say in encouragement of the numerous young men seeking to enter the civil engineering profession, often with an equipment of scientific knowledge and general education which would have been regarded as exceptional in his own early days. Sir Charles traced the development of transportation in Greater London during the past fifty years, and gave a number of interesting tables relating to local railways, suburban sections of main-line railways, tramways, omnibuses, etc.; these carried a total of 1,036,806,934 passengers in 1900 and 3,125,321,122 in 1920. From the developments which have taken place, and others projected, Sir Charles refuses to believe that the profession of civil engineering has entered upon a

permanent decline. No one can deny that there is reason for temporary discouragement of young men who are at present confronted with extraordinary difficulty in obtaining work. If the older members were to shut their eyes to the seriousness of the position of junior members of the profession, they would be failing in their duty. It is the part of such bodies as the Institution of Civil Engineers to do all that can be done by organisation, encouragement, and co-operation to hasten that recovery of the whole profession to which all look forward.

A GUIDE, with code and instructions, relative to wireless weather telegraphy in Great Britain and the countries of Europe and North Africa, has recently been issued by the Meteorological Office of the Air Ministry (M.O. 252, H.M.S.O. 2s. 6d. net). The details of the meteorological messages transmitted by the several countries are arranged on a uniform plan. Times of sending are explained and the meanings of the symbols used, so that any one having the suitable equipment can receive both reports and forecasts. The issue of particulars of the messages from different countries is brought up to date, and amending notices will be issued as required from time to time. Purchasers of this new edition of the guide will be informed when fresh notices are issued if they notify the Director of the Meteorological Office that they desire to receive the information. Use can be made of messages transmitted to the Meteorological Office by the aid of which the daily weather reports and forecasts are prepared for the Press and the general public. In addition to this a "general inference" is issued at 9.15 A.M. and 8 P.M. based on observations taken at numerous local and foreign stations as well as over the Atlantic. An example is given of the "general inference," and it is stated that "the first transmission of this report is made at ten words a minute for the benefit of amateurs." The message is in plain language, and can be readily understood by others than meteorologists. The general inference is in effect a picture in words from which a general survey of the prevailing and controlling weather conditions can be obtained.

The annual reports of the Smithsonian Institution of Washington contain not only full statements of the activities of the Institution during the year, but also a large general appendix which consists of a miscellaneous collection of memoirs covering a wide range This appendix forms fully threeof subjects. quarters of the volume for 1921, which has recently been issued, and it provides a valuable collection of noteworthy scientific papers issued during the year. Many of the items are original and by American workers, while others are translations and reprints. Among the latter are: "Cosmogeny and Stellar Evolution," by Mr. J. H. Jeans, from NATURE of June 30 and July 7, 1921; and "The Age of the Earth," by Lord Raleigh, Prof. W. J. Sollas, Prof. J. W. Gregory, and Dr. Harold Jeffreys, from NATURE of October 27, 1921. The translations included are: "The Diameters of the Stars," by A. Danjon, from L'Astronomie of November and December 1921; "The Historic

Development of the Evolutionary Idea," by Branislav Petronievics, which is a translation of the first chapter of Petronievics' work, "L'Évolution universelle"; "The Heredity of Acquired Characters," by Prof. L. Cuénot, from the Revue Générale des Sciences of October 15, 1921; "The Indian in Literature," by Herman F. C. ten Kate, from papers published in the Dutch magazines De Gids (1919) and De West-Indische Gids (1920); and "The Alimentary Education of Children," by Prof. Marcel Labbé, from the Revue scientifique of September 10, 1921.

THE Christmas lectures at the Royal Institution, which are to be delivered this year by Sir William Bragg, will be published afterwards in book form by Messrs. G. Bell and Sons, Ltd., under the title, "Concerning the Nature of Things."

We have received from Messrs. Ogilvy and Co., 18 Bloomsbury Sq., W.C.I, the British agents, new editions of Leitz catalogues of microscopes and dissecting microscopes and magnifiers. Microscopes, objectives, magnifiers, and other apparatus of all types are listed, and the purchaser has a wide choice as regards both elaboration and price. In addition, some interesting and instructive details are given of the general properties of objectives and eyepieces and of their classification.

Messrs. C. Baker, of 244 High Holborn, London, W.C.I, have recently issued a new classified list of second-hand scientific instruments (No. 79) which they have for disposal. The catalogue contains a large assortment of apparatus, and particularly of microscopes, telescopes, and their accessories. Among the astronomical telescopes (refractors) are a 12 in. equatorial and a 7¼ in., both by Cooke, and an 8 in. by

Grubb. A wireless department has been established by Messrs. Baker, and a list of the apparatus available, all of which is new, has been added to the catalogue of second-hand instruments.

In the Year-book of the Royal Society of Tropical Medicine and Hygiene, Session 1923–24, recently issued, an account with illustrations is given of the Chalmers and Manson memorial medals of the Society. The former, founded by a donation from Mrs. Chalmers, is in memory of Dr. Albert J. Chalmers; the latter, by a surplus of a portrait fund, is in memory of Sir Patrick Manson. The Chalmers medal is awarded biennially, and this year has been presented to M. E. Roubaud, of the Pasteur Institute, Paris. The Manson medal is awarded triennially, and has been presented to Sir David Bruce.

The Cambridge Philosophical Society is to publish, through the Cambridge University Press, as separa e supplements to the Proceedings, translations of Dr. Niels Bohr's present series of papers "On the Application of the Quantum Theory to Atomic Structure," Part I. of which has already appeared in the Zeitschrift für Physik, vol. xiii. (1923). The translation of Part I. will be closely followed by a similar translation of Part II., which it is hoped will appear simultaneously with the German version. Part I. will deal with the fundamental postulates of the quantum theory, and Part II. with the theory of series spectra.

ERRATA.—In our issue of November 10, p. 704, in the Research Item on the Early Proboscideans, for "Schlasser" read "Schlosser"; December 1, p. 806, in the Research Item on the Cheiropterygium in Amphibia, line 3 from end, for "its first 'i' read "its first 'e."

## Our Astronomical Column.

The December Meteor Shower.—Mr. W. F. Denning writes: "This annual display of meteors may be expected on the night of Wednesday, December 12, when it will probably reach its maximum intensity. The shower is visible, though it supplies very few meteors, during the first week of December, and the radiant point appears to be a moving one like that of the August Perseids. As the moon will be absent from the evening sky during the early part of December this year, it will be possible to watch the oncoming and development of the shower if we get sufficiently clear weather. The position of the radiant on Dec. I will be about 98°+34°; on Dec. 5, 104°+33°; on Dec. 10, 110°+33°; and Dec. 15, 116°+32°.

"Occasionally, the shower proves a rich one and upplies shout the

"Occasionally, the shower proves a rich one and supplies about 40 or 50 meteors per hour; but the most abundant displays are usually witnessed in the morning hours, as the radiant is then at a greater altitude than in the earlier part of the night. In 1920, on Dec. 12, the shower returned with considerable strength, though it does not appear to have been well observed, in consequence of unfavourable weather.

"The individual meteors of this stream are moderately swift and short, and as they do not often leave streaks or trains they are rather difficult to record accurately. The radiant point is therefore not often determined as correctly as that of the Perseids or Leonids."

Companion to Omicron Cetí.—The interesting variable Omicron or Mira Ceti has been found by Prof. R. G. Aitken (Harv. Coll. Obs. Bull. No. 792) to have a close companion, at distance I of , position angle 1323°. The companion was bluish in colour, and on October 19 was fully half a magnitude fainter than the variable. The tardy discovery of a companion to such a well-scrutinised star is remarkable, and suggests that the distance may be increasing. It will doubtless be carefully followed in the hope of obtaining an orbit, which would determine the mass of Mira. It is possible, however, that the pair is an optical, not a physical, double.

Proposed Observatory in New Zealand.—The Bulletin of the New Zealand Astronomical Society announces that the University of Yale has offered a large telescope for astronomical observation in New Zealand, provided a good site can be found, the conditions of seeing to be tested with a telescope of 6 or 7 in. aperture, in a similar manner to the tests made before setting up the Victoria telescope in British Columbia. The New Zealand Government has been approached to grant funds for this examination, and has given a hopeful reply. The difficulty appears to be to combine good seeing with convenient access. Most of the towns are near the coast, and the seeing is poor. Various sites are suggested by amateur astronomers, and it is greatly to be hoped that the scheme may go through