

## Current Topics and Events.

WE are glad to be able to announce that representatives of British science are included among those who have received their Majesties' invitation to the marriage of Her Royal Highness Princess Mary on Tuesday next, February 28.

PROF. F. G. HOPKINS and Dr. W. H. R. Rivers have been elected members of the Athenæum Club under the rule which empowers the annual election by the committee of a certain number of persons "of distinguished eminence in science, literature, the arts, or for public service."

IN a letter to NATURE of May 19, 1921 (vol. 107, p. 359), Prof. Stanley Gardiner directed attention to the serious effect of the German Reparations (Recovery) Act upon scientific workers and institutions in this country in regard to the duty of 26 per cent. on German publications; Prof. Gardiner at the same time protested strenuously to the Board of Trade. He has now received a reply in which the Board states that an Order has been made under section 5 of the Act referred to granting exemption from the levy in the case of certain periodical publications in the German language. The Order, which is dated February 16, reads:—"Any article of the following description shall be exempt from the provisions of the said Act—that is to say, any article being a publication in the German language which is proved to the satisfaction of the Commissioners of Customs and Excise to be a periodical publication of a German learned society or other scientific or philosophical periodical publication." Communication should be made with the Secretary, Custom House, Lower Thames Street, E.C.3, for particulars as to the manner in which to apply for the exemption of any particular consignment.

THE relatives of the late Sir Ernest Shackleton decided that the most appropriate burial-place for the dead explorer was the sub-Antarctic island of South Georgia, where he died and on which he performed the great feat of crossing the unknown ridge of mountains on his way from Elephant Island to the settlement of whalers in 1916. The body, which had been brought from South Georgia to Monte Video by Capt. Hussey, the meteorologist to the Shackleton-Rowett Expedition, was accordingly conveyed on board the British whaler *Woodville* at that port on February 15, the late explorer's birthday, and Capt. Hussey sailed with his old leader on the following morning. The Uruguayan Government, with characteristic sympathy and generosity, arranged the funeral procession as a State function, particulars of which appeared in the *Times* of February 16. The body in the rough wooden coffin made by the South Georgian whalers was taken to the English church in Monte Video, where the funeral service was read by Canon Blount. The coffin, placed on a gun-carriage and covered with the Union Jack and many wreaths, including one in bronze from the Uruguayan Government, was taken to the British Club, the British

Chargé d'Affaires and many members of the British colony, including some from Buenos Aires, following. At the club the Uruguayan Minister of Foreign Affairs joined the procession, which moved on to the wharf accompanied by a guard of honour of Uruguayan Lancers, and the streets were lined with troops. At the wharf the Uruguayan War Minister delivered a sympathetic address, which was replied to by the British Chargé d'Affaires. When the *Woodville* sailed she was accompanied to the limit of territorial waters by the Uruguayan cruiser *Uruguay*, and on parting she fired a salute and ranged alongside the *Woodville*, with all hands lining the ship in farewell. The burial will take place on March 1, and a memorial service will be held in St. Paul's Cathedral on March 2.

A SOMEWHAT startling paragraph recently appeared in the *Times* giving an account of petroleum "divining" of an extraordinary nature by means of laboratory experiments carried out in France. Dr. Henri Moineau and M. Regis have apparently been at work on an apparatus for which it is claimed that by "harnessing Hertzian waves" the composition of subterranean solid, liquid, and gaseous matter may be indicated, quite irrespective of distance! Experiments are at present being carried out at the Puy du Dôme, in the Clermont-Ferrand region, and already this mysterious apparatus has detected petroleum deposits in Alsace, Saxony, Hanover, Czecho-Slovakia, Italy, the Rocky Mountains, the Allegheny Mountains, and finally in the Andes. No account whatever is given of the nature of the apparatus itself, though it is suggested that X-ray photography plays an important rôle in the determinations, particularly in the elucidation of underground structures. It is further alleged that with the apparatus it is possible to discern, not only oil, but also coal, minerals, and water occurring in remote parts of the world, the idea being that once such occurrences are located all that is necessary as a preliminary to successful boring is an aerial reconnaissance for the purpose of taking "X-ray photographs" of the selected areas. We cannot refrain from remarking that, although first impulse may dictate a dismissal of the matter as extravagant, present knowledge of electromagnetic wave propagation, though limited, is sufficient to promote realisation of possibilities, and caution before condemning prematurely their utilisation in the present connection.

AT a celebration which took place in the chemistry lecture theatre of the Sorbonne on January 22 Prof. Henry Le Chatelier was presented with a gold medal in commemoration of his fifty years' work of scientific and technical research. The chair was occupied by M. G. Noblemaire, president of the Comité Jubilaire, who recalled the various stages in the career of the illustrious *savant* and outlined the series of remarkable discoveries made by him, most of which have received important industrial applications. Eloquent speeches were also made by M. Molliard, dean of the Faculté des Sciences, and by M. Bertin, president of the

Académie des Sciences. Prof. Trasenster, representing the University of Liège, handed Prof. Le Chatelier the diploma of engineer *honoris causa* of the "Faculté Technique Wallonne." Surrounded by eminent men of science, engineers, and students, Prof. Le Chatelier, after thanking the members of the committee, declared that he was happy "to have been able to add a few links to the solid and durable chain of scientific discoveries, science being essentially a collective work, forged by the continuous and methodical labour of the savants."

THE search for the two missing men, Tessem and Knudsen, of Amundsen's Arctic Expedition who left the *Maud* in October, 1918, in the vicinity of Cape Chelyuskin carrying dispatches to Europe leaves no room for hope that they are alive. The *Times* of February 18 announces that Capt. Jacobsen, who has been searching the north-west coast of Siberia in the *Heimen*, found a note from the men near Cape Wild (long. 91° 30' E.) to the effect that they arrived there in the middle of November, 1918, and found their provision dépôt much damaged by sea-water, but that they were leaving under favourable conditions for Port Dickson, at the Yenisei mouth. Beyond Cape Wild, at a distance which Capt. Jacobsen does not specify, he found the remains of camp-fires and indications that a human body had been cremated. He believes that one of the men died there and that the survivor burnt his body lest it should be devoured by bears. No further traces were found.

THE first volume of the Dictionary of Applied Physics, of which Sir Richard Glazebrook is the editor, is announced by Messrs. Macmillan and Co., Ltd., for March, and the remaining four volumes may be expected before the end of the year. The successive volumes are to be devoted to mechanics, engineering, and heat; electricity; meteorology and metrology; optics, sound, and radiology; and metallurgy and aeronautics. The arrangement of the articles in all the volumes is to be alphabetical, and each article is written by a specialist. The list of contributors shows that the editor has succeeded in securing actual workers in each branch, and that the articles will therefore be thoroughly up to date. As the first attempt to place before the public in a convenient form the methods and results of recent research in applied physics, the Dictionary will be welcomed by all engaged in industries in which physics plays a part, as well as by scientific workers generally.

THE annual dinner of the Illuminating Engineering Society on February 10 aptly illustrated the variety of work with which the society is now concerned. Sir John H. Parsons, president of the society, presided. Sir Herbert Jackson, representing the Royal Society, proposed the toast of "The Illuminating Engineering Society," and Mr. J. B. Lawford (chairman of the Council of British Ophthalmologists) joined him in expressing appreciation of the programme of the society, notably in promoting discussion of the effect of light on the eye. The toast of "Kindred Societies" was proposed by Mr. F. W.

Goodenough. Mr. T. Hardie (president of the Institution of Gas Engineers) and Mr. A. A. Campbell Swinton (vice-president of the Institution of Electrical Engineers and chairman of the Royal Society of Arts) pointed out how those associated with both forms of lighting had found a common interest in illuminating engineering. The toast of "The Guests" was proposed by Mr. L. Gaster. Mr. R. E. Graves (H.M. Chief Inspector of Factories) and Mr. William Brace (Mines Department), in responding, referred to the activities of the society in connection with industrial lighting and conditions of illumination in mines, and Mr. H. E. Blain emphasised the importance of good illumination in the interests of safety, both in relation to traffic and in industry.

THROUGH the generosity of the Fertilisers Manufacturers' Association and of the British Sulphate of Ammonia Federation, a special member has been appointed on the staff of the Rothamsted Experimental Station for the purpose of explaining the plots to farmers and others. Mr. H. V. Garner, of the School of Agriculture, Cambridge, has accepted the new post. The director, Dr. E. J. Russell, will now be glad, therefore, to arrange with secretaries of farmers' clubs, Chambers of Agriculture, and other bodies interested for visits to the plots. Among important items of interest are experiments on the manuring of arable crops, especially wheat, barley, mangolds, and potatoes; the manuring of meadow hay; the effect of modern slags and mineral phosphates on grazing land, hay land, and arable crops; crop diseases and pests; and demonstrations of good types of tillage implements, tractors, etc. At any convenient time between May 1 and October 1 there is sufficient to occupy a full day, and provision is being completed for assuring that the time shall not be lost, even if the weather turns out to be too bad to allow of close inspection of the fields.

IT will be remembered that Dr. Saleeby, writing in *NATURE* of December 8, p. 466, urged the importance of a co-ordinated inquiry into the action of sunlight in health and disease, under the auspices of the Medical Research Council. We are glad to see that the council has now appointed the following Committee to report upon the promotion of researches into the biological action of light with the view of obtaining increased knowledge of the effects of sunlight and other forms of light upon the human body in health or disease:—Prof. W. M. Bayliss (chairman), Mr. J. E. Barnard, Dr. H. H. Dale, Capt. S. R. Douglas, Sir Henry Gauvain, Dr. Leonard Hill, and Dr. J. H. Sequeira. Dr. Edgar Schuster is secretary of the Committee.

AT the monthly meeting of the Zoological Society of London held on February 15 twenty-four new fellows were elected to the society and thirty proposed for the fellowship. The secretary stated that the additions to the society's menagerie during January numbered 151—52 by presentation, 76 deposited, and 23 by purchase. The most important accessions included a Macedonian wolf (*Canis lupus*), a Dybowski's deer (*Cervus hortulorum*), eleven plumbeus quails (*Synaecus plumbeus*), and two angle

fish (*Pterophyllum scalare*), the last two species new to the collections. The report of the secretary recorded a considerable decrease in the number of visitors to the gardens in January as compared with the numbers of the corresponding month last year.

At a meeting of the council of the National Institute of Agricultural Botany held on February 9 the first election of fellows of the institute took place. A hundred and ten candidates were elected, among whom were the following:—H.R.H. the Duke of York, the Prime Minister, the Duke of Bedford, the Marquess of Crewe, the Earl of Ancaster, the Earl of Derby, the Earl of Crawford, Viscount Milner, Lord Clinton, Lord Bledisloe, Lord Ernle, Sir Gilbert Greenall, Sir Harry Verney, Sir Matthew Wallace, the Hon. E. G. Strutt, the Right Hon. E. C. Pretyman, M.P., the Right Hon. Sir A. Griffith-Boscawen, Sir Thomas Middleton, Mr. Charles Adeane, Mr. Samuel Farmer, Mr. R. R. Robbins, and Lady Margaret Boscawen.

THE officers and other members of council of the Malacological Society of London for the ensuing year were elected on February 10 as follows:—*President*: Mr. A. S. Kennard. *Vice-Presidents*: Mr. J. R. le B. Tomlin, Prof. A. E. Boycott, Mr. G. K. Gude, and Mr. C. Oldham. *Treasurer*: Mr. R. Bullen Newton. *Editor*: Mr. B. B. Woodward. *Secretary*: Mr. A. E. Salisbury. *Other Members of Council*: Dr. A. H. Cooke, Mr. H. O. N. Shaw, Lt.-Col. A. J. Peile, Mr. T. Iredale, Dr. E. W. Howell, and Mr. Hugh Watson.

ON Thursday next, March 2, Prof. H. M. Lefroy will deliver the first of two lectures at the Royal Institution on (1) "The Menace of the Insect Pest" and (2) "The Balance of Life in Relation to Insect Pest Control." On Saturday, March 4, Sir Ernest Rutherford will begin a course of six lectures on radioactivity. The Friday evening discourse on March 3 will be delivered by Dr. C. Morley Wenyon on "Microscopic Parasites and their Carriers."

DR. W. BATESON, director of the John Innes Horticultural Institution, Mostyn Road, Merton, S.W.19, is giving a demonstration of the genetics of *Primula sinensis* at the institution to-day, February 23, at 3 p.m. All interested in the subject are invited, and in particular those who attended Dr. Bateson's lectures on genetics in November last. Admission is free, without ticket.

THE ninth election to Beit fellowships for scientific research will take place in July next. Applications must be received by the Rector, Imperial College of Science and Technology, South Kensington, S.W.7, not later than April 19. Forms of application and all information respecting the fellowships are obtainable from the Rector of the Imperial College of Science and Technology upon written request.

THE first award of the Meldola medal, referred to in NATURE of January 12, p. 49, has been made by the council of the Institute of Chemistry, with the concurrence of Dr. Percy E. Spielmann, representing the Maccabæans, to Dr. Christopher Kelk Ingold.

Our Astronomical Column.

DETONATING FIREBALL IN SUNSHINE.—Mr. W. F. Denning writes that this object observed by him on February 7 at 3.55 p.m. appears to have been seen by comparatively few observers, although the loud detonations which followed it were heard by large numbers of people, chiefly in Warwickshire, over which county the fireball passed. It seems to have caused the loudest reports near the middle section of its flight, in the region of Quinton, Feckenham, Mere Hall, and Droitwich. At some places there was only one sound heard, at others two, but all the observers agree that the concussion and vibration were of startling intensity. The detonations were heard along a line directed from S.E. to N.W. The radiant point of the meteor was at 60°-11°, and the height from 56 to 32 miles; the length of luminous flight was 82 miles, and velocity about 10 miles per second. The position of the object was from over Oxfordshire to Shropshire.

MOVEMENTS IN SPIRAL NEBULÆ.—In this column for January 12 reference was made to the movements in spiral nebulae which Dr. Jeans described at the Royal Astronomical Society when exhibiting slides sent by Dr. van Maanen. Dr. van Maanen has now published the fifth paper on this subject in the issue of the *Astrophysical Journal* for December last, showing the results of his investigation with regard to the spiral nebula Messier 81. This paper contains the evidence on internal motions derived from the four nebulae which Dr. van Maanen has now measured, namely, M 101, 33, 51, and 81, and he summarises the results in a table of which the following is an

abstract. The second column gives the interval in years between pairs of photographs he has compared, and the following four columns the motions as indicated at the heads of the columns. The last column gives the number of nebular points the positions of which were independently measured:—

(Units for Motions 0.001")

Object	Interval in years	Rotational	Radial	Stream	Transverse	No. of nebular points
M 101	5	+21	+ 5	+21	0	87
M 101	9	+20	+ 6	+22	- 3	69
M 101	15	+12	+ 7	+14	+ 2	46
M 33	10	+20	+ 6	+24	- 2	30
M 33	5	+14	+12	+18	+ 4	21
M 51	11	+19	+ 8	+21	+ 3	79
M 81	6	+20	+17	+25	+16	52
M 81	11	+38	+13	+39	+ 7	104

It will be seen that all pairs of plates show the same type of motion, and, as Dr. van Maanen points out, the agreement in the values of the motion for each nebula derived from different pairs of plates is as satisfactory as could be expected. In addition to the rotational components, which correspond to the periods in the order of the nebulae in the table, namely, 83,000, 160,000, 45,000 and 58,000 years, they all show a large outward radial component. The close agreement of the displacements in direction with the spiral arms of the nebulae suggests, as he states, "a realisation of the motions described by Jeans in 'Problems of Cosmogony and Stellar Dynamics.'"