

Physicians appealed to Moore in the same way as did those of St. Bartholomew's Hospital. He filled all the usual posts with unflinching punctuality, was Harveian Librarian, and served in the office of president from 1918 to 1921. He was also the representative of the College at the General Medical Council. He had an intimate knowledge of the needs of medical education, and he took a leading part in that recasting of the medical curriculum which began in 1886 and is still in progress.

Moore's love of books and his knowledge of their

contents were utilised by the Royal Medical and Chirurgical Society, where he filled the post of honorary librarian for many years. When the society was merged in the present Royal Society of Medicine, Moore, in conjunction with Mr. Stephen Paget, wrote the chronicles of the society from 1805 to 1905, with some account of the presidents.

In 1919 Moore was created a baronet. He was twice married, and is succeeded by his surviving son, Alan Hilary.

Current Topics and Events.

WHILE the rest of the world has been getting used to filling up the forms required by Customs authorities, and to awaiting with patience the delays involved in the examination by Customs laboratories of imported products that may prove to be dutiable, Great Britain has forgotten the very existence of such things, and their reintroduction, as a consequence of the Safeguarding of Industries Act, is regarded as little less than a revolutionary innovation by importers and their spokesmen in the House of Commons. It is clear from the debate which took place on Sir John Simon's amendment to the motion for an address in reply to the King's Speech, regretting the absence of any reference to the repeal of this Act, that opposition to the Act arises largely from its administration. Almost every speaker admitted the necessity of legislation to prevent the recurrence of the famine in magnetos, drugs, optical glass, dyes, and other essential commodities, which occurred in this country on the outbreak of war, but those who wished the Act repealed failed to mention a scheme by which this end could be achieved, probably because any attempt to do so would split up the apparently solid phalanx of opposition. To those who have the national welfare in mind, the troubles of Sir John Simon's trader, who had a consignment of potassium permanganate held up for two months by the Customs, will make slight appeal, and they would cheerfully see a few traders, who have no direct interest in industry and merely buy and sell, sacrificed, if by that means they could ensure the establishment in this country of highly technical industries in which skilled craftsmen and technical experts could be employed and the safety of the country in war and in peace assured. The difficulties which the operation of the Act places in the way of the importation of chemicals and instruments required by research workers, naturally evoke more sympathy than those of traders; and it is satisfactory that the Government was able to promise a joint inquiry by the Department of Scientific and Industrial Research and the Board of Trade into the progress actually made in the industries with which the Act is concerned. In the course of that inquiry these difficulties will no doubt be fully explored and means of dealing with them evolved.

THE needs of men of science in Russia have been referred to on several occasions in our columns, and we have suggested that the different groups of scientific and technical societies should concern

themselves with groups of workers in their own departments. This has, we believe, been done in connexion with the Committee for the Relief of Russian Intellectuals, the president of which is Sir Paul Vinogradoff. There is an Engineers' Section Sub-Committee, with Sir Robert Hadfield as president, and this sub-committee has just made an appeal on behalf of Russian engineers and their families, who, not alone in the famine areas but throughout Russia, are undergoing terrible suffering and distress. If British engineers will help, many lives can be saved and the human energy and knowledge necessary for the reconstruction of Russia can be retained. Assistance is required for the provision of food and clothing. Food parcels may be sent to particular individuals, or names and addresses can be supplied to donors who prefer to send parcels direct. Remittances should be sent to the honorary treasurer, Mr. R. C. Griffith, 8 Victoria Avenue, Bishopsgate, London, E.C.2, who will be glad to give any particulars desired.

A SCIENTIFIC novelties exhibition will be held at King's College, Strand, W.C. (by kind permission of the College delegacy), from December 28 to January 10, in support of the Hospitals of London Combined Appeal. Members of the scientific staffs of the various colleges and schools of the University of London, as well as of university institutions having recognised teachers, are assisting with exhibits or demonstrations, and short lectures with experimental or lantern illustrations will be given by Profs. Bairstow, Sir William Bragg, Cheshire, Winifred Cullis, Flinders Petrie, Garwood, Gordon, Macgregor-Morris, Watts, Wilson, and many others. The exhibition will not be merely a display of objects of interest, but of the character of a *conversazione*, in which experiments and demonstrations will be going on continuously. It will thus be attractive to both old and young, and we hope it will bring a substantial sum into the fund for which it is being organised.

THE issue of *La Nature* for November 18 contains a summary of the recent International Congress on Combustible Liquids held in Paris under the auspices of the French Society of Chemical Industry. Prior to the opening of the congress, an exhibition was organised in which practically every phase of the petroleum and allied industries received attention. The several stages in the production and refining of crude oil were amply illustrated by an excellent

series of exhibits, including not only the various products manufactured, but also the plant and machinery employed both in the field and in the refinery. A special feature was the exhibition of different types of internal combustion engines in actual operation, burning those grades of fuel most suited to particular designs. The congress was opened by Prof. Sabatier, and the business transacted was of a most comprehensive nature, the industry being considered in both its theoretical and practical aspects. Undoubtedly the most important question raised at this congress was that of the necessity of adopting a uniform terminology to cover the enormous variety of combustible liquids now being marketed. At the present time the utmost confusion reigns in many cases where a name for a given product in one country implies a totally different product in another. Further, the varied methods adopted of testing these products for definite commercial purposes are often productive of results which, while suitable for one country, are quite ineffective for another. In order, therefore, to standardise both methods of comparison and the nomenclature universally applicable to definite products for specific purposes, an international commission has been set up, composed of delegates of the several countries represented at the congress. The importance of this work cannot be overestimated, particularly from the point of view of European markets, though it is to be hoped that representatives of the American petroleum industry will take a prominent part in the framing of the ultimate standards adopted.

DR. J. WALTER FEWKES, chief of the Bureau of American Ethnology, Smithsonian Institution, has recently returned to Washington from the season's archaeological field-work on the Mesa Verde National Park, Colorado, and reports the unexpected find of an interesting prehistoric ruin to which he has given the name, "Pipe Shrine House." A mound of some magnitude in the neighbourhood of a reservoir called Mummy Lake was investigated, and a rectangular building about 70 feet square and one story high, which is accurately oriented to the cardinal points, and has a circular tower formerly 15 to 20 feet high, like a church steeple, midway in the western wall, was discovered. The tower was probably used for observing the sun as it rises in the east or sets in the west, in order to determine the time for planting and other events. In the middle of the building was found a circular room twenty feet deep and about the same in diameter in which were more than a dozen clay tobacco pipes, numerous stone knives, pottery, idols, and other objects. Pipes of this kind have never before been found on the Mesa Verde National Park; apparently after the rite of smoking they were thrown into the shrine. South of the building, which was evidently specialised for ceremonies, is a square room or shrine dedicated to the mountain lion, a stone image of which was found surrounded by water-worn and other strangely formed stones. A similar shrine in the north-east corner of Pipe Shrine House contains a small iron meteorite and a slab of stone on which is depicted the symbol of the sun.

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THE juvenile lectures at the Royal Institution this Christmas will be delivered by Prof. H. H. Turner, whose subject is "Six Steps up the Ladder to the Stars." The first lecture will be given on Thursday, December 28, on "The Distance of the Stars," followed by "The Discovery of the Planet Neptune," "Photographing the Stars," "The Spectroscope and its Revelations," "Two Great Streams of Stars," and "The Size of a Star." The following are the lecture arrangements before Easter: On Tuesday afternoons, commencing January 16, there will be two lectures by Prof. F. G. Donnan on "Semi-Permeable Membranes and Colloid Chemistry," two by Mr. R. D. Oldham on "Earthquakes," two by Prof. A. C. Pearson on "Greek Civilisation and To-day," two by Sir Arthur Shipley on "Life and its Rhythms," and two by Prof. C. G. Seligman on "Rainmakers and Divine Kings of the Nile Valley." On Thursday afternoons, the Hon. J. W. Fortescue will give two historical lectures beginning on January 18, Prof. I. M. Heilbron two on "The Photosynthesis of Plant Products," Prof. B. Melvill Jones two on "Recent Experiments in Aerial Surveying," and Mr. Theodore Stevens two on "Water Power of the Empire." On Saturday afternoons commencing January 20, there will be two lectures by Sir Walford Davies on "Speech Rhythm in Vocal Music," two by Mr. J. C. Squire on "Subject in Poetry," and six by Sir Ernest Rutherford on "Atomic Projectiles and their Properties." The first Friday evening discourse will be delivered by Sir James Dewar on January 19 on "Soap Films as Detectors of Stream Lines, Vortex Motion and Sound." Succeeding discourses will probably be given by Sir Almoth Wright, Mr. C. F. Cross, Sir John Russell, Dr. A. V. Hill, Prof. A. S. Eddington, Dr. G. C. Simpson, Dr. M. R. James, and Sir Ernest Rutherford.

THE Journal of the Textile Institute has now nearly completed its first year under the new arrangement by which its pages are separately arranged and numbered under the three headings of Proceedings, Transactions, and Abstracts. The new form of the Journal should appeal to a wide scientific public, and the attention of biologists interested in the raw materials of plant or animal fibre may be directed to the very wide field covered by the abstractors and to the scientific character of the papers appearing in the Transactions. The Journal is now the medium through which a considerable amount of the scientific work carried on by the research associations of the woollen and worsted, the cotton and the linen industries, first sees the light. These newly formed research associations have naturally been busy surveying their wide fields for future effort, and the result has been that a number of very useful general summaries of the state of our knowledge of the chemistry, physics, and botany of the cotton hair have been published in the Journal by members of the staff of the British Cotton Industry Research Association. Preliminary results of new investigations upon the plant fibre also begin to appear, as, for example, the two papers by C. R. Nodder upon plant fibres, dealing mainly with flax and hemp.

ACCORDING to the last monthly circular of the British Cast Iron Research Association, the new director of research, Dr. P. Longmuir, is now formulating a scheme for the active prosecution of research work in several directions. Among the subjects now in hand are: iron suitable for moulds for glass bottles, these moulds being at present largely imported from abroad; and the magnetic properties of cast iron. The high silicon irons now found so useful in chemical industry on account of their high resistance to mineral acids are also to be investigated. Together with the American Testing Society, the question of the standardisation of cast-iron test bars is being examined, and it is hoped that an international specification can be devised. The Association is strengthening its library and reference facilities, and should appeal to a wider circle of ironfounders than its present rather limited membership, in view of the importance of cast iron to the national industries.

IN the Proceedings of the Royal Society of Edinburgh (June 1922) the general secretary—the late Dr. C. G. Knott—gives some interesting notes of a correspondence between the Royal Society of Edinburgh and the French Academy of Sciences about the priority of the discovery of the pilot cable (*câble guide*) for guiding ships into harbour in foggy weather. In 1921 the French Academy awarded a medal and a prize to W. A. Loth for various devices in connexion with navigation, and among these was the *câble guide*. The principle of this device, the Edinburgh Society states, is essentially that of the pilot cable invented by C. A. Stevenson and described by him in the *Journal of the Society* in 1893. Mr. Stevenson's invention consists in laying a wire or wires along the bed of the sea or of a river. Intermittent currents are sent along these wires, and suitable devices can be used on board ship to detect their proximity, and thus receive a warning of dangerous coasts, shoals, and so on. Stevenson's patent proves that the rough general principle was known so early as 1891, but this does not detract from the credit due to Loth for perfecting the system. The principle of the method is identical with that used by electricians in London prior to 1890 for locating the position of an underground cable.

A CHADWICK public lecture on "Relative Values in Public Health" was delivered by Sir Arthur Newsholme, on December 7. In the course of his lecture, which is one of a course, Sir Arthur Newsholme, after deprecating the indiscriminating call for retrenchment in public health expenditure, stated that it is necessary to adopt every practicable measure for educating the public, and the first step is to educate people as to the causes of evils. Historically, panic—fear of cholera and "fever"—had facilitated sanitation. In Sir Arthur's opinion, the appointment of paid inspectorates, thus introducing a new element into the implements of government, is necessary. Inspection has increased, extending from things and conditions of work and housing of persons, until we have now in view the ideal of hygiene advice and warning available for every member of the com-

munity. The inspections have educational value even more than in securing reform. Surveys are extended and systematised inspections, and are of value in arousing the community conscience and in securing the driving power needed for reform.

SIR WILLIAM H. BRAGG, Quain professor of physics in the University of London, has been elected a corresponding member of the Paris Academy of Sciences in the section of physics.

THE library of the Chemical Society will be closed for the Christmas Holidays at 1 P.M. on Friday, December 22, and will reopen at 10 A.M. on Thursday, December 28.

THE Indian Botanical Society took over ownership and control of the *Journal of Indian Botany* in October (1922). Prof. P. F. Fyson, who started the *Journal* in 1919 as a private enterprise, will continue as editor.

PROF. H. N. RUSSELL, of Princeton University, was presented with the Draper gold medal of the National Academy of Sciences of the United States of America at a dinner held in connexion with the New York meeting of the academy on November 15.

AT the meeting of the Royal Geographical Society on December 11, at the Æolian Hall, the French Ambassador, on behalf of the Société de Géographie of Paris, presented a gold medal to Prof. J. W. Gregory for his geographical work in East Africa. Prof. Gregory afterwards read a paper, the substance of which will be found on p. 826, on the results of his recent journey in the mountains of Chinese Tibet.

THE Swiney lectures on geology, in connexion with the British Museum (Natural History), are being delivered at 5.30 P.M. on Tuesdays, Thursdays, and Fridays, at the Royal College of Science, South Kensington, by Prof. T. J. Jehu, who has chosen as his subject "Fossils and what they Teach." Admission to the lectures, twelve in number, is free.

A STATUE of Prof. Adolf von Baeyer, presented by the Interessengemeinschaft der Farbenfabriken, was unveiled in the Botanic Garden of the University of Munich on October 20. Prof. Willstätter spoke on behalf of the University, and Dr. Duisberg on behalf of the Interessengemeinschaft, Prof. Seeliger for the Bavarian Academy of Sciences, and Dr. Lepsius for the German Chemical Society.

A COMMITTEE "to inquire and to report as to the method of charging for gas on a thermal basis" has been appointed by the Board of Trade. The members of the committee are as follows: Sir Clarendon Golding Hyde (*Chairman*), Mr. Arthur Balfour, Sir James Martin, Mr. A. A. Pugh, and Mr. W. J. U. Woolcock. Mr. W. H. L. Patterson, of the Board of Trade, will act as secretary to the committee.

IN a communication to the *Revue Scientifique* of October 28, Profs. Béhal, Haller, and Moureu urge the necessity of establishing some kind of protective measure to prevent German chemicals entering France. They point out that such measures have been established in the United States, England, Italy, and Japan, and they believe that prompt action of

a similar kind is necessary if French chemical factories are to remain in operation and French chemists in employment.

THE Bibliographic Institute for Auxiliary Scientific Work (1a Longridge Road, London, S.W. 5), established in 1917, affords assistance in the work of scientific research by supplying bibliographies upon subjects of any kind. The cost of such bibliographies depends entirely upon the range of work comprised in the special subject stated. Further information can be obtained from the English representative of the Institute at the above address.

A MEMORIAL window in Westminster Abbey in remembrance of Sir J. W. Wolfe Barry, past president of the Institution of Civil Engineers, was dedicated on December 7 by the Dean of Westminster. The window, which is in the nave, contains the figures of two angels holding tablets on which are inscribed the words "In Memory of John Wolfe Barry, K.C.B., F.R.S., Civil Engineer. Born 1836. Died 1918." Below the tablets are shields showing, among others, the arms of the Institution of Civil Engineers, of the University of London, and Sir John Wolfe Barry's personal arms.

THE annual meeting of the Mathematical Association will be held on Monday, January 1, and Tuesday, January 2, at the London Day Training College, Southampton Row. At the Monday meeting, which is to be at 5.30, Dr. S. Brodetsky will read a paper on "Gliding." On Tuesday there will be two sessions, one at 10 and the other at 2.30. At the first, a statement respecting the forthcoming report of the Sub-committee on the Teaching of Geometry

will be made by Prof. E. H. Neville, and the following communications will be read: "The Uses of Non-Euclidean Geometry to Teachers," W. C. Fletcher; "Simple Geometrical and Kinematical Illustrations of the Plane Complex," Prof. R. W. Genese; and "A Certain Dissection Problem," J. Brill. At the afternoon meeting Sir Thomas L. Heath will deliver his presidential address, taking as his subject "Greek Geometry, with Special Reference to Infinitesimals"; and Prof. A. Lodge will read a paper on "Differentials as the Basis for Teaching the Calculus."

A USEFUL Catalogue (New Series, No. 5) of second-hand books on sale by Messrs. Wheldon and Wesley, Ltd., 2 Arthur Street, W.C.2, has just been issued. It contains upwards of 1200 titles of works dealing with geology, mineralogy, mining, coal gas, water, building materials, metal manufactures, etc.

MESSRS. DULAU AND CO., LTD., 34 Margaret Street, W.1, have just circulated a short, but choice, catalogue (No. 98) of Early Botanical Books. It is arranged under the headings "Herbals and Materia Medica," and "Early Agriculture and Gardening: Flora, Fungi, Orchids, Serial Publications, etc." Among the 356 works listed many are scarce.

THE Institute of Metals, 36 Victoria Street, London, S.W.1, has issued a name and subject index of the Journal of Institute (vols. i-xxv.). The volume contains more than 20,000 entries and covers metallurgical work done during the period 1909-21. Copies can be obtained through booksellers or direct from the Institute of Metals.

Our Astronomical Column.

THE REPORTED NOVA IN LYRA.—In this column last week reference was made to the announcement of the appearance of a new star near the constellation of Lyra. The weather conditions for observing the object were not favourable, in this country at least, until the night of December 6, when observations were made at Greenwich, the Norman Lockyer Observatory in Devon, and at Armagh. All the observers reported that no bright star existed in the region of the supposed nova; in fact, photographs of the spectra of stars in that region down to the sixth magnitude, taken at the Norman Lockyer Observatory, did not reveal the presence of any star giving the characteristic spectrum of a new star. That a star of the first magnitude should dim so quickly in such a short period of time would be quite unique in the records of novæ, so it must be assumed that the observer was mistaken or the announcement incorrect.

Dr. A. C. D. Crommelin writes: "Widespread cloud prevented the announcement of the discovery of a Nova in Lyra from being tested at once, and it was thought advisable to circulate it with a caution, so that advantage might be taken of any clear intervals to search for it. December 6 was fairly clear at Greenwich, and it was quickly found that there was no strange orb visible to the naked eye in the neighbourhood of the given spot. Telescopic comparison was made with the B.D. chart for an area of 4 square degrees round the position without

success. This search was conclusive, at least down to magnitude 7. Dr. Lockyer, Mr. Ellison (Armagh), Prof. Strömberg, and Dr. W. H. Steavenson also searched without success. The *Daily Mail* cabled to Bucharest and learnt that the Astronomical Society there knew nothing of the discovery. There is therefore practically no doubt that the announcement was the result of some mistake, the exact nature of which it is useless to conjecture."

LARGE FIREBALLS.—Mr. W. F. Denning writes:—"A large fireball appeared on November 24 at 6.40 P.M. which was seen from London, Manchester, and other places. It caused considerable flare in the sky for several seconds, and threw off a train of sparks at the later period of its flight. Comparing the various observations the radiant point is indicated at $87^{\circ} + 34^{\circ}$ and the meteor fell from a height of 71 to 26 miles. Its length of path was about 124 miles, and velocity 25 miles per second. It passed over the earth from the region about 12 miles west of Grimsby to Shrewsbury. The radiant point near Theta Aurigae is a fairly well-known centre of a minor shower observed during the last half of November."

Another great fireball appeared at about midnight on December 6 and caused a surprising illumination in the region of north Lincolnshire. A noise like thunder was heard two minutes after the disappearance of the meteor. The flight of the meteor was from east to west, but details of an exact nature are lacking.