many personal interests, ranging from Dutch pictures to army buttons, wherein Hall's exuberant boyish vitality found expression. For him, as for Stevenson's happy child, "the world was so full of a number of things".

Meanwhile, in the Museum, Hall rapidly mastered the difficult technique of both sides of his department, Egyptian and Assyrian. He published hieroglyphic texts, Coptic and Greek documents almost as difficult, scarabs combining linguistic and historical with artistic problems, early metal-castings from Al-'Ubaid, and the monumental architecture of Dair-el-Bahari. A great museum's exhibition galleries rightly reflect the personality and outlook of its keepers, in liaison between the advance of learning and the broadening interests of its popular visitors. Certainly, with his keen eye for colour and modelling, and his strong historical sense of perspective, Hall left appreciably brighter as well as more intelligible those halls along which, swinging his keys, you met him striding as if over downland.

It was Hall's good fortune—as well as due to his quality—that he was one of the first assistants in the British Museum to be allowed, and later sent, to take part in excavation abroad; a practice now well established, and amply justified by its effects, as the recent Royal Commission has testified. Hall's first campaigns were with the Egypt Exploration Fund at Dair-el-Bahari (1903–7) and at Abydos (1910), under the veteran Edouard Naville, and with Prof. T. E. Peet in the party. At Abydos he excavated again in 1925. The War brought him in time, like other archæologists, to the countries he most needed to visit, as a captain in political service in Mesopotamia; and as soon as circumstances permitted he organised the great series of excavations which the Museum has conducted jointly with the University of Pennsylvania, at Ur and in its neighbourhood, and himself discovered and brought home the wonderful early statues and relief work in copper from Tell-al-'Ubaid, published in the first instalment of "Ur Excavations" (1929). As responsible Keeper, after 1924, he was no longer able to conduct this field work; but the successes of Mr. C. L. Woolley and his colleagues owe much to his vigorous, methodical, and tactful conduct of the home-front.

Probably Hall's best-known book was an "Ancient History of the Near East", first published in 1912. It was the first handbook of the kind in English, since the days of Rawlinson, and is in its seventh edition; the soundness of its conception and workmanship is attested by the very small amount of remodelling which it has needed, in a period of rapid, multifarious discovery. Without attempt at fine writing, Hall tells his story as of a living world, with a historian's training, the museum-man's gift of easy reference to required fact, and the broad humanity and common sense characteristic of all he said and did. That indeed is what his Trustees, other learned institutions, and the Government valued in him increasingly; and his untimely death followed over-exertion as their representative at a series of important conferences abroad.

J. L. M.

WE regret to announce the following deaths:

Prof. Adolf Engler, formerly Director of the Botanic Garden and Museum at Berlin-Dahlem and joint author with Prantl of "Die Natürlichen Pflanzenfamilien", on Oct. 10, aged eighty-six years.

Col. J. W. Gifford, a pioneer in the use in Great Britain of X-ray photography, who also contributed to the improvement of telescopic lenses, on Oct. 27, aged seventy-four years.

Mr. J. E. Purvis, of Corpus Christi College, Cambridge, who had been University lecturer in chemistry and physics as applied to preventive medicine since 1909, on Nov. 1.

Mr. B. B. Woodward, an original member and past-president of the Malacological Society of London, formerly librarian of the British Museum (Natural History), on Oct, 27, aged seventy-seven years.

News and Views.

THE Rede lecture delivered by Sir James Jeans at Cambridge on Tuesday last, on "The Mysterious Universe", was marked by the clarity and suggestiveness to which we have grown accustomed in his welcome utterances. Starting with the conception of mankind as the product of an accident in a universe the main course of which was quite other than towards the production of human life, he reviewed the successive ideas which these chance creatures have held of the universe outside themselves. He enumerated three stages, represented by an anthropomorphic, a mechanical, and a mathematical view of the nature of the reality behind phenomena. The last of these has lately been introduced by the advance of physics, and Sir James regards it as a far closer approximation than its predecessors to the 'ultimate reality', with which, however, we are not yet in contact. He made no attempt to evade issues which are the subjects of acute differences of opinion. "We discover", he said, "that the universe shows evidence of a designing or controlling power that has something in common with our own individual minds—not, so far as we have discovered, emotion, morality, or æsthetic appreciation, but the tendency to think in the way which, for want of a better word, we describe as mathematical." "This concept of the universe as a world of pure thought", he went on, "implies, of course, that the final truth about a phenomenon resides in the mathematical description of it; so long as there is no imperfection in this, our knowledge of the phenomenon is complete."

To Sir James Jeans, as—rather less tentatively—to Sir Arthur Eddington, the recent developments of physics seem to rule out determinism from the course of Nature. "The old science had confidently proclaimed that Nature could follow only one road, the road which was mapped out from the beginning of time to its end by the continuous chain of cause and effect; state A was inevitably succeeded by state B. . . . The new science . . . can . . . specify the relative probabilities of states B, C, and D. But,

just because it has to speak in terms of probabilities, it cannot predict with certainty which state will follow which." Sir James Jeans's views will not meet with general acceptance, and indeed it was one of the merits of the lecture that it was provocative of far more thought than it expressed. While it may be true that physics has led to a mathematical conception of Nature, it may well be asked whether it could possibly do anything else. The mechanical view which has been displaced was itself fundamentally mathematical, and the 'displacement' is in reality less a substitution than a purification. We may well ask whether we are justified in concluding that a mathematical description of a phenomenon is a complete one when our means of investigation could scarcely yield anything more. How could an æsthetic description, for example, supposing it to be possible, be given by the methods of physics?

SIR JAMES JEANS dealt briefly with this point, but his remarks will probably not give universal satisfaction. Incidentally, we may note also that the view he advances is not altogether a modern one: it was not, in fact, unknown to the ancient Greeks, to whom the universe was a problem in geometry. "The Creator", says Plato—of whose ideas in another connexion Sir James Jeans made a striking application—"practises geometry eternally." The bearing of the new physics on the problem of determinism, too, is perhaps not so simple as it appears. It is not sufficiently emphasised nowadays that the departure from strict causality exists, if at all, only in a purely conceptual world, which, by its own innate requirements, can never possibly be observed. The determinism of Nature is not removed but merely re-interpreted, and the whole question is given an illusory bearing on the problems of philosophy and religion by the employment of the word 'probability' in a different sense from that in which it is generally understood. Sir James's lecture will serve a more than useful purpose if it becomes the means of dragging these questions out of the confusion in which they are now deeply immersed into the air of clear thought.

WHATEVER his political creed, no one familiar with the scientific work done by the dyestuffs industry in Great Britain could fail to be moved to uneasiness by the impending lapse of the Dyestuffs (Import Regulation) Act. The safeguarding of this new and virile national industry is not a matter merely of economic importance, although from this point of view and in relation to the volume of employment it is serious enough. The question, however, of the continuance of the protection is one which ought not to be regarded as necessarily being subject to the same mode of approach, or debated on the same political principles, as may fairly be applied to the general case of tariffs versus free trade. It has to be remembered that there are bound up with the fortunes of this branch of our chemical industry wide and serious problems of national scientific development in directions which lead far from the immediate interests of the colour industry.

THE Institute of Chemistry of Great Britain and Ireland has recently published a statement referring to the influence of the Dyestuffs Act during the past ten years on the education of British chemists and on the progress of research in industry. During this period of assistance, the laboratories maintained by the dyestuffs industry in Great Britain have followed the example of those established long ago in Germany, by serving as the focus of research and development not only in the extending range of coal-tar products but also generally in the domain of applied organic chemistry. This most desirable movement has called into being an adequate corpus of skilled chemists and technologists, and the protection afforded to the industry has encouraged the provision of substantial facilities for instruction and research. In short, good progress has been made along sound lines towards the re-establishment, on an independent footing, of our coal-tar colour industry; the future both of the industry and of organic chemistry in Great Britain would, however, be jeopardised if the Act were allowed to expire forthwith.

IT is announced that the Nobel Prize for Medicine for 1930 has been awarded to Dr. Karl Landsteiner, of the Rockefeller Institute for Medical Research, New York. Dr. Landsteiner was born in Vienna in 1868, and was educated at the University of Vienna, where he became professor of pathological anatomy in 1909, holding this chair until 1919, and becoming attached to the Rockefeller Institute in 1922. His published work includes studies on the virus of fowl plague and on infantile paralysis. In immunology, he has devoted much attention to the characters and individual differences of human blood as regards blood groups, corpuscular agglutinins and agglutinogens, and their inheritance, and to the serological properties of the blood of the anthropoid apes. He has also published investigations on the formation of bacteriolytic immune bodies, cell antigens and specificity, and serological specificity and chemical constitution.

OF the many pioneers of the steamboat, to Henry Bell—the centenary of whose death falls on Nov. 14—belongs the distinction of inaugurating steam navigation in the Old World, just as to Robert Fulton belongs the honour of inaugurating steam navigation in the New World. Fitch, Rumsey, Miller, Stevens, and Symington had all achieved a certain amount of success with their experimental boats, but it is with the passages of Fulton's *Clermont* on the Hudson in 1807 and of Bell's *Comet* on the Clyde in 1812 that the history of the steamboat as a regular means of transport begins. Neither Fulton nor Bell were the originators of steam propulsion; neither of them constructed either the hulls or the machinery of their boats; neither of them introduced any improvement in steam engines or boilers; but it was to their imagination, confidence, and courage rather than to their mechanical ingenuity that they owed their achievements. Of the two, Fulton undoubtedly possessed in a greater degree the qualities requisite to a great pioneer, but our debt to Bell is not lessened thereby.

BELL was born in the Old Torphichen Parish Mill, Linlithgow, on April 4, 1767, and died at Helensburgh on Nov. 14, 1830. Brought up as a mechanic, he had worked under Rennie in London and had been the partner of a builder in Glasgow before settling in 1808 in Helensburgh. At this place he was proprietor of the Baths' Inn, and it was for conveying customers between Helensburgh and Glasgow that the *Comet* was built. Laid down in October 1811, at Port-Glasgow, the vessel was launched on July 24, 1812, and began running during the following month. Seven months later she found herself with a rival, and in 1813 no fewer than five steamboats were afloat on the Clyde. These proved superior to the *Comet*, which Bell tried for a time on the Forth and then on the west coast of Scotland, until on the afternoon of Dec. 15, 1820, she was caught by the tide and cast ashore off Crinan, and broke in halves. The forward part holding together, the engine was salved and to-day stands in the Science Museum, South Kensington. In spite of his efforts, Bell's fortunes never rose high, and during the latter part of his life he was given a grant by the Government and an annuity by the Trustees of the River Clyde. At his death he was buried in the parish churchyard at Rhu, near Helensburgh, and many years later the famous shipbuilder, Robert Napier, erected his statue there. A granite obelisk to Bell's memory was also set up on the front at Helensburgh, while another memorial at Bowling recalls his services to those who have occasion to pass up and down the most important shipbuilding river in the world.

A STRONG earthquake occurred on the morning of Oct. 30 along the sea-coast of the province of the Marches in Italy. The epicentre was probably submarine and close to the small town of Senigallia (near Ancona), where one-third of the buildings were destroyed, another third seriously injured, and ten persons lost their lives. Slight shocks were felt at Trieste (142 miles from Senigallia), Padua (145 miles), and Naples (195 miles), so that the area disturbed may have contained so much as 120,000 square miles, a rather unusual size for an Italian earthquake. Sea-waves are said to have swept the adjoining shores and damaged some of the quays, indicating, if the report is correct, that there was some displacement at the epicentre. The Kew seismographs recorded an earthquake of moderate intensity at 7 h. 16 m. 7 s., G.M.T. All along the coast of the province of the Marches, there are, according to Dr. M. Baratta, a number of minor seismic zones. Senigallia lay within the meizoseismal areas of the destructive earthquakes of Rimini in 1672 and Ancona in 1690, but the earthquake that bears the closest relation to the recent shock is the Senigallia earthquake of Sept. 21, 1897, by which nearly all the buildings in the town were more or less damaged. The epicentre was probably a few miles off the coast at Senigallia, and the disturbed area about 175,000 square miles.

FOR some years past, there has been a wish on the part of some of the inhabitants of Bournemouth to establish there a natural history museum. In 1912, Sir Ray Lankester addressed a public meeting upon this matter, and recently, Mr. J. B. Calkin, of Bournemouth, has been instrumental in again urging the need for such an institution. A letter signed by a number of influential citizens has been forwarded to the mayor, but it was felt that this should receive support of a more public nature, and an invitation was sent to Mr. Reid Moir, president of the Ipswich Museum, to address the Bournemouth Rotary Club upon the question. The meeting was held on Oct. 28, and was fully representative of the scientific and municipal life of Bournemouth. Mr. Reid Moir, after outlining the great richness of the area from the geological, archæological, and other points of view, remarked that a vast mass of important material has already left the district, and that this regrettable process will continue until a properly equipped museum is in existence to receive it. He urged the necessity of such provision, and suggested that, in its initial stages, the museum should be of a more or less local character. Mr. Reid Moir also stressed the ever-growing importance of museums in national education, and outlined the nature and value of a modern museum of natural history. He emphasised the need for erecting the building on a site where expansion can take place, and the expectation that large numbers of visitors to Bournemouth would be attracted to the museum. Judging from the support given to the proposal at the meeting, it is hoped that, before long, this progressive town will possess an adequate and up-to-date exhibition of objects of natural history.

MOST towns of considerable size have their occasional exhibitions to illustrate and commend the use of gas, the use of electricity, developments in domestic utensils, and so on, but few contemplate an exhibition to illustrate the wonders of science, as Hastings has done in recent years (NATURE, Oct. 25, p. 658). Of course, the practical exhibitions are backed by the hope of ultimate financial gain, while the wonders of science are fortunate to escape without financial loss; but nevertheless it is a little disturbing to think that the men of commerce are more determined to proselytise the people for a material end, than the men of science generally are for a spiritual. The attempt at Hastings to interest the people in science and add to their knowledge by means of a temporary Science Exhibition, accompanied by demonstrations, science talks, and formal lectures, is therefore to be encouraged. Such an exhibition can be planned in detail and carried out only by scientific men, but the organisation and the financial arrangements must be in the hands of a municipal or other authority, capable of looking beyond the monetary balance-sheet to the educational benefits which follow. Co-operation between municipalities, museums, and teaching institutions to this end should be readily obtained, and we trust that other towns may follow the lead which Hastings has given in introducing to the public some of the wonders of science.

AN exhibition illustrating the utilisation of photography in astronomy, arranged by the Royal Photographic Society of Great Britain, is being held at

the Society's rooms, 35 Russell Square, W.C.1, on Nov. 4–29. The exhibition is the second of a series planned by the Society to illustrate the uses of photography in the service of man. The Society is to be congratulated on having secured a comprehensive series of photographs representing the work of observatories and of individual astronomers not only in Great Britain but also in Canada, Egypt, France, Germany, India, South Africa, and the United States. The increasing application of photography to astronomical observations during the last fifty years has been rich in results to an extent almost unimagined, and there is ample evidence of this in the four hundred items of the exhibition. The number of exhibits requiring technical discernment for their full appreciation, such as solar and stellar spectra, is in reasonable proportion, and in many cases where the subject under illustration is not obvious, simple descriptions have been appended. The exhibition is worth careful inspection for more than one reason. In several instances exhibits have been arranged to present some elementary fact of astronomical observation—the sun's rotation, the rapid changes of solar prominences, the changing appearance of the surface of Jupiter with the shadow of a satellite —whilst the latest discovery pertaining to the solar system is shown by a photograph of the planet Pluto.

A FEW photographs of historical interest have been included in the Exhibition of Astronomical Photography to show the march of progress; one views with respect the results achieved by those early workers who used a wet plate or a recently invented dry plate with what would now be considered limited telescopic equipment. Concerning the wealth of recent work represented—it would be invidious here to particularise—astronomers have sent of their best results, and one cannot fail to be impressed with their spectacular record of many of the grandest aspects of the heavens known to man. In connexion with the exhibition, Prof. H. Dingle will deliver a lecture on "Spectrum Photography", on Nov. 17, and Mr. J. H. Reynolds will give "A Talk on the Slides and Films in the Exhibition", on Nov. 24. The Exhibition is open free to visitors between 10 A.M. and 5 P.M. on each day, except on Sundays. No tickets are required for the above lectures at 7 P.M.

ON Friday, Oct. 31, a public lecture on "High-Pressure Reactions" was delivered before the Institution of Chemical Engineers by Prof. W. A. Bone. Prof. Bone dealt briefly with the historical events leading up to an understanding of the rôle played by pressure in gas reactions. Within a period of less than fifty years has been included the first recorded synthesis of ammonia from its elements by the agency of a catalyst, the statement of the principle of mobile equilibrium, and the classical work of Haber and his collaborators upon equilibrium in an ammonia-nitrogen-hydrogen system. A more recent development has been the synthesis of various organic compounds from water-gas by the employment of suitable catalysts and high pressure, which has opened up a wide field for future exploration. The variety and complexity of these new processes, however, require much systematic and fundamental research before a clear understanding of their mechanism is obtained. One of the difficulties encountered in high-pressure gas reactions is the lack of reliable fundamental data on the physical properties of gases. No more useful link could be undertaken at present than a comprehensive determination or re-determination of such data as the compressibility of gases and of mixtures of gases and the effect of pressure on viscosity, dielectric strength, solubility, and thermal conductivity. Although such work falls within the scope of a high-pressure gas research laboratory rather than of a works routine laboratory, the cost of equipping and maintaining such a laboratory has hitherto proved an insuperable barrier. Some three years ago, however, a complete high-pressure gas research laboratory was established in the Department of Chemical Technology at the Imperial College of Science, and work has been commenced on a number of physical problems directly connected with high-pressure reactions. Prof. Bone's lecture will appear in full in the *Transactions* of the Institution of Chemical Engineers, vol. 8.

THE British School of Archæology in Egypt has found recently in the Wadi Gaza, and its tributary valleys in Southern Palestine, a very important series of flint implements of Lower Palæolithic types. These specimens, which were described by Mr. Reid Moir at a meeting of the Royal Anthropological Institute on Oct. 28, can be divided into two sharply defined groups, the oldest comprising coarsely flaked rostro-carinate implements, rostroid hand-axes, choppers, and points. There is no doubt that these specimens, in their method of evolution, forms, and technique, are comparable with others found in East Anglia and elsewhere, and known to be of Early Pleistocene date. The latter implements exhibit usually striation and abrasion by ice-action, while the Palestinian examples, which have not yet been discovered *in situ* in any ancient deposit, show manifold signs of collisions with other stones in rapid movement. It is supposed that the ice-sheets present farther north were represented in Palestine by extensive snowfields, which, on melting, gave rise to widespread floods, and the abrasion of any implements exposed to such conditions.

THE second group of Palestinian specimens described by Mr. Reid Moir differs very markedly from the first—as they are quite unabraded, and comprise beautifully made hand-axes of Late Acheulean types. Some of these implements have been found *in situ* beneath a considerable depth of sand at Sherah. It is evident that both the archaic and the later groups of specimens from Palestine were made each by a differing technique and upon a highly specialised plan. Further, it can be demonstrated that a precisely similar method of implement-making was in vogue in England, Africa, and India in remote times. It seems necessary to suppose that centres of dispersal of cultures existed in prehistoric times, as it is not a reasonable supposition that a race of people living, for example, in Palestine would, by coincidence, proceed to make their flint implements on the same

complex plan as that adopted by another race in England or India. The existence of these world-wide cultures in the Lower Palæolithic epoch appears to imply that the human race was even then more highly organised than has been hitherto supposed, and that very extended periods of time were involved in the spread of certain "fashions" in implement-making over such wide areas of the globe.

IN *Engineering* for Oct. 31 is an illustrated account of the closing of the arch span of the great Sydney Harbour Bridge in August and September. The span, which is 1650 ft. between the main supports, has been erected as two cantilevers from either side, each cantilever being supported by 128 steel wire cables connected to the top chord at the end of each end post, and carried down to the solid rock through a tunnel 120 ft. deep. The steel-work has been put into position by creeper cranes, each 605 tons in weight, travelling on the tops of the half-arches. There are fourteen panels in each half-span, and when thirteen and a half of these had been completed the total pull on the cables was 27,440 tons. When sufficiently far advanced for joining both upper and lower chords, the load was lessened on the cables one by one by means of hydraulic jacks. Included in the article are photographs of the forged steel saddles, with their alignment pins, for the bottom chords, and the jacking arrangements by which the correct compression was obtained in the upper chords. The forcing apart of these chords was done by means of four hydraulic jacks of nickel steel, each of 950 tons capacity.

AT the invitation of the Ministry of Agriculture and Fisheries, three committees of the International Council for the Exploration of the Sea met at the Fisheries Laboratory, Lowestoft, during the first week in November. Several foreign delegates and experts were present, and the president of the Council, Mr. H. G. Maurice, presided over the meeting of the Executive Committee, or Bureau. The other two committees dealt respectively with the plaice and the herring. It has long been known, as the result of marking experiments, that small plaice transported from the overcrowded grounds on the Continental coast to the Dogger Bank will grow very much faster on this famous fishing ground, and the Council decided at the last meeting that the possibility of carrying out such transplantation on a large scale should be very carefully examined. A committee has therefore been constituted to study the financial aspects of the question and to decide, if possible, whether the transplantation of, say, one million plaice can reasonably be expected to yield a commercial profit. The committee on the herring includes in its membership the principal experts from all countries bordering on the North Sea. It is engaged principally on technical questions, its main task being to secure uniformity and standardisation of methods of research and closer co-operation in the study of the herring. A scheme was presented by the English fishery workers for a more detailed study of the herring in the southern North Sea, with the view of rendering more exact the predictions of the great East Anglian herring fishery, which have already been made with some success.

A SCIENTIFIC Advisory Committee on Medical Administration and Investigation has been appointed by the Secretary of State for Scotland "to assist the Department of Health for Scotland in applying the results of scientific research to the details of public health administration and in promoting such medical investigations as come within the sphere of the Department or of the local authorities in Scotland". The members of the Committee are: Dr. Alexander Bowman, Scientific Superintendent, Marine Laboratory of the Fishery Board for Scotland; Prof. C. H. Browning, professor of bacteriology, University of Glasgow; Prof. E. P. Cathcart, professor of physiology, University of Glasgow; Prof. F. A. E. Crew, professor of animal genetics, University of Edinburgh, and Director of Animal Breeding Research Department; Sir Walter M. Fletcher, Secretary to the Medical Research Council; Sir Robert Greig, Secretary, Department of Agriculture for Scotland; Mr. John Jeffrey, Secretary, Department of Health for Scotland; Dr. J. Parlane Kinloch, Chief Medical Officer, Department of Health for Scotland; Dr. A. S. M. Macgregor, Medical Officer of Health, Glasgow; Prof. T. J. Mackie, professor of bacteriology, University of Edinburgh; Prof. J. J. R. Macleod, professor of physiology, University of Aberdeen; Prof. Robert Muir, professor of pathology, University of Glasgow; Dr. J. B. Orr, Director of the Rowett Institute for Research in Animal Nutrition, Aberdeen; and Prof. W. J. Tulloch, professor of bacteriology, University of St. Andrews. Dr. Parlane Kinloch is chairman, and Mr. George Wallace, of the Department of Health for Scotland, is secretary of the committee.

IT is announced in the *Museums Journal* for October that the Carnegie Trustees are now prepared to receive applications for grants from small museums administered by public authorities, under the following conditions, which will be strictly observed: (1) The grants will not exceed £250 to any one museum. (2) The museum authorities must show that they are prepared to adopt some definite policy and are reorganising their institution on the lines recommended by Sir Henry Miers in his 1928 Report to the Trustees. They must also show that they are prepared to provide an adequate annual revenue for the upkeep of the institute under the new policy. (3) The grants are to be confined to towns with between 10,000 and 70,000 inhabitants. They will be given in respect of capital expenditure only on the £ for £ basis. They will not be available for the erection or structural alteration of buildings, or for ordinary current expenditure. They are to be expended on special outlays (for example, purchase of cases, employment of temporary staff) in connexion with the reorganisation schemes in respect of which they are sanctioned. (4) Each museum applying must have, or be prepared to appoint, a competent curator. Applications should be addressed in the first instance to the Secretary, Carnegie United Kingdom Trust, Comely Park House, Dunfermline, Fife, Scotland.

THE *Australian Museum Magazine*, a quarterly edited by Dr. Charles Anderson, an Orcadian by birth, manages well to strike the balance between pure

science and popular reading. But the July-September number especially interests us, apart from its articles, by the evidences it contains of the activity of the Australian Museum. Notices on the covers direct attention to new series of postcards illustrating in four-colour process typical beasts and birds of Australia; other notices are attractive invitations to special exhibits in the Museum and to a series of popular scientific lectures in which "the subjects dealt with will be presented in a clear, lucid, non-technical manner, making known many unfamiliar facts concerning Nature and her ways". Finally, the telephone extension number of each specialist on the staff is given, and visitors are invited to apply for information, when they "will receive every attention from Museum officials". These are excellent methods of making the public feel that the Australian Museum exists for their service, and so of obtaining the widest public assistance and support. Museum officials in Great Britain perform the same services, but it is well that the public should be reminded so frankly of the willingness of the museums to help in the spread of scientific knowledge.

THE Leicester Literary and Philosophical Society, with a membership of more than three hundred, performs useful service to science in arranging a series of lectures on scientific (as well as literary) subjects, delivered by experts. In addition to these general lectures, more specialised meetings bring together members interested in particular branches of scientific work. The *Transactions* for 1929–30 (vol. 31) contain reports of these sections and an interesting address by the president, Mr. T. Kingdom, on "The Minor Legacies of Greece", in which he reviews briefly the contributions to knowledge made by some outstanding men of science among the ancient Greeks. Unfortunately, the statement of accounts shows a deficit of £15 on the year's working, but since there appears to be no entry for interest on War Stock and deposit account, there may be a hidden reserve to meet part of the loss. The Society deserves more local support, and the projected meeting of the British Association in Leicester in 1933 should give a fillip to its aims and to its membership.

MANY highly qualified translators have now been enrolled on the Aslib Panel of Expert Translators (see NATURE, June 28, p. 984). More than thirty languages are represented, from Arabic to Urdi, but the great value of the service offered by this scheme is that the members of the Panel possess that expert knowledge of special subjects without which trustworthy translations cannot be made. The range of subjects covered by the Panel is wide. Especially strong in pure and applied science, medicine, chemistry, engineering, etc., it includes also men and women experienced in law, industry, commerce, and many other branches of knowledge. Particulars of the scheme may be obtained from the Association of Special Libraries and Information Bureaux, 26 Bedford Square, London, W.C.1.

IN the article entitled "African Ethnology and Archæology" in NATURE of Nov. 1, p. 707, paragraph 2, it is stated that associated with the pottery of stone age cultures in Kenya were "tools of a Mousterian type". This phrase should read "tools of Upper Kenya Aurignacian type". Mr. L. S. B. Leakey informs us that the Upper Kenya Mousterian is contemporary with the Upper Kenya Aurignacian but is not associated with even crude pottery.

THE Year Book of the Commonwealth of Australia, of which the issue for 1929 has now appeared (Commonwealth Bureau of Census and Statistics, 5*s*.), is more than a statistical record of the country. There are many descriptive articles of considerable value, such as those on various aspects of agriculture and mineral wealth, and that on the structure and scenery of the federal capital territory. In several sections parallel figures for other countries add to the value of the statistics. The volume now runs to more than a thousand pages.

PART II. (Civil Tables) of "The Registrar-General's Statistical Review", 1929, has just been published at the reduced price of 2*s*. (London: H.M. Stationery Office). The estimated population (in thousands) of Great Britain and Ireland was 48,684. Compared with 1928, England and Wales show an increase of 0·32 per cent, Scotland and the Irish Free State decreases of 0·18 and 0·20 per cent respectively, while Northern Ireland remains stationary. Statistical data concerning marriages and divorces, passenger movements, births, and electors are included in the volume.

MESSRS. W. and G. Foyle, Ltd., 119 Charing Cross Road, W.C.2, have recently issued a catalogue of nearly 700 second-hand works relating to scientific subjects which should be of interest to many readers of NATURE.

APPLICATIONS are invited for the following appointments, on or before the dates mentioned:—A lecturer in engineering at the Cape Technical College—Chalmers and Guthrie (Merchants), Ltd., 9 Idol Lane, E.C.3 (Nov. 17). An assistant bacteriologist in the Public Health Laboratory of the County Council of the West Riding of Yorkshire—The Clerk of the County Council, County Hall, Wakefield (Nov. 17). A junior research assistant in the High Pressure Research Laboratories of the Imperial College of Science and Technology—The Registrar, Imperial College of Science, South Kensington, S.W.7 (Nov. 21). An agricultural chemist at the Agricultural Institute and Experimental Station, Kirton—The Principal, Agricultural Institute, Kirton, near Boston, Lincs (Nov. 22). An assistant in the Department of Pathology of the Hospital for Consumption and Diseases of the Chest—The Secretary, Hospital for Consumption and Diseases of the Chest, Brompton, S.W.3 (Nov. 22). An assistant pathologist at the Royal Surrey County Hospital, Guildford—The General Superintendent, Royal Surrey County Hospital, Guildford. A test assistant under the directorate of technical development of the Air Ministry, to assist in experimental metallurgical work—The Chief Superintendent, R.A.E., South Farnborough, Hants (quoting A.459).