been much more practical in the matter of turning scientific knowledge to account. "With all his boasted idealism he has long since ceased to follow scientific research purely and solely for the love of the thing." He "has been taught that if science possesses any practical value it would be an unpardonable violation of an economic law to allow that value to go unexploited. As a result the university and Government laboratories are closely linked up with the factories and workshops of the nation." Scientific achievement both in theory and in practice receives higher recognition in Germany than in any other country. That commercial and industrial use is made of the achievements of science has not lowered the tone of the German man of science, but has raised the tone of German industries. In Germany, says Mr. Vickery, "not merely one man as a voice crying in the wilderness, but a thousand voices, from the Kaiser downwards, have been crying in chorus—*Think scientifically, act scientifically.*' There is no need, he thinks, for us to copy German methods, for if we once recognise the underlying truths of scientific development, both in theory and in practice, we shall be able to work out the methods of fruitfully applying the discoveries of science.

SOCIETIES AND ACADEMIES.

LONDON.

Royal Society, March 8.—Sir J. J. Thomson, president, in the chair.—W. B. **Bottomley**: Some effects of growth-promoting substances (auximones) on the growth of *Lemna minor* in culture solutions. 1. Raw peat, when further decomposed by means of aerobic soil organisms—"bacterised peat"—is found to contain certain growth-promoting substances (auximones). 2. *Lemna minor* plants cannot maintain growth for any length of time in culture solutions containing only mineral nutrients. 3. The presence of soluble organic matter is essential for complete growth. 4. The addition to the mineral culture solution of 368 parts per million of organic matter from the water extract of bacterised peat resulted, after six weeks, in a multiplication of the number to 20 times, and an increase in weight to 62 times, that of the control plants. The water extract free from humic acid, representing an addition of 97 parts of organic matter per million, gave $9\frac{1}{2}$ times the number and 29 times the weight; 32 parts per million from the alcoholic extract gave $3\frac{1}{3}$ times the number and $7\frac{1}{3}$ times the weight; 13 parts per million from the phosphotungstic fraction gave $1\frac{1}{2}$ times the number and $2\frac{1}{2}$ times the weight. 5. The effect of the reduction in amount of auximones with successive fractionation of the bacterised peat was also manifest from the general appearance of the plants. Those in mineral nutrients only, decreased in size week by week, and became very unhealthy in appearance, whilst there was a progressive improvement in the appearance of the plants supplied with increasing amounts of auximones. Those receiving the larger amounts retained their normal healthy appearance throughout the experiment and increased in size. 6. The beneficial effect of the auximones was not due to a neutralisation of the toxic substances present in the ordinary distilled water, since comparable results were obtained with conductivity water. 7. An interchange of culture solutions, with and without auximones, showed that the plants are very sensitive to the presence or absence of these substances. —Florence A. **Mockeridge**: Some effects of growth-promoting substances (auximones) on the soil organisms concerned in the nitrogen cycle. This investigation deals with the effect of bacterised peat and the various auximone-fractions obtained from it upon the four chief groups of soil bacteria concerned in the nitrogen cycle, *in situ*, and in liquid culture. The addition of bacterised peat to soil increased the rate of nitrogen fixation quite independently of any bacteria contained in the material. This increase was not due to aeration, nor could it be brought about by chemically treated peat. Experiments in liquid culture showed that a water extract of this material greatly increased the nitrogen fixation of Azotobacter and of *Bacillus radicicola*. An alcoholic extract and the decomposed phosphotungstic acid and silver baryta fractions from it were also very effective. Similar results could not be obtained with chemically prepared soluble humus or with artificial humus. The accumulation of nitrate in soil containing bacterised peat was greater than that which could be accounted for by the soluble nitrogen which it contained, and took place more rapidly than in a similar soil provided with an equal amount of soluble nitrogen as ammonium sulphate. Since the water extract of the material was found to be directly nitrifiable, its effect upon the rate of nitrification was not tested, but the auximone-fractions, which were not nitrifiable, greatly increased the rate of nitrification of ammonium sulphate solutions. The auximone-fractions were without effect upon the rate of ammonification in soils and upon the ammoniacal fermentation of urea. The water extract had no effect upon the rate of denitrification, but the auximone-fractions directly inhibited the process. The work indicates that certain decomposition products of organic matter stimulate the activities of certain soil bacteria, and appear to play an important part in nitrogen metabolism.

Physical Society, February 9.—Prof. C. V. Boys, president, in the chair.—Dr. A. **Griffiths**: Note on the calculation of the coefficient of diffusion of a salt at a definite concentration. In the calculation of the coefficient of diffusion, by B. W. Clack, a simple relation is assumed between the density of a solution of a salt and the concentration. This simple relation is only approximately correct, and compromises are made which require justification. This note (1) suggests a method of calculating the coefficient of diffusion which, to a high degree of theoretical accuracy, gives values for the coefficient which are independent of a precise relationship between density and concentration; and (2) justifies the method of calculation adopted by B. W. Clack.—Dr. P. E. **Shaw** and C. **Hayes**: A special test on the gravitation temperature effect. In the Philosophical Transactions of the Royal Society, vol. ccxvi., pp. 349–92, there is a paper by one of the authors dealing with the possible existence of a temperature coefficient of the constant of gravitation. It was suggested in the discussion that the effect might be due to an inward displacement of the large lead spheres, at the higher temperatures, due to convection currents. In the present paper experiments are described in which this point is tested by micrometric measurements of the positions of the supporting wires. It is shown that, at the higher temperatures, there is a small *outward* displacement of the spheres, probably due to the expansion of the crosshead from which they are suspended. A slightly *higher* value has, therefore, to be given to the temperature coefficient of gravitation.

Geological Society, February 16.—Annual general meeting.—Dr. Alfred Harker, president, in the chair. —Dr. A. **Harker**: Anniversary address. Some aspects of igneous action in Britain, especially its relation to crustal stress and displacement. This relation appears not only in the distribution of igneous activity in time and space, in the succession of episodes, the habits of intrusions, etc., but also in the petrographi-

cal facies of the igneous rocks themselves. The cause of such relation was sought in the existence of extensive inter-crustal regions in a partially molten state: that is, with some interstitial fluid magma, which must normally be rich in alkaline silicates. There will be a continual displacement of the interstitial magma from places of greater stress to places of less stress, and certain broad differences in chemical composition are therefore to be expected between the igneous rocks of orogenic belts and those erupted in connection with gentle subsidence.

February 28.—Dr. Alfred Harker, president, in the chair.—Dr. A. **Smith Woodward**: Fourth note on the Piltdown gravel, with evidence of a second skull of *Eoanthropus dawsoni*. With an appendix on the form of the frontal pole of an endocranial cast of *Eoanthropus dawsoni* by Prof. G. **Elliot Smith**.—Excavations last summer round the margin of the gravel-pit at Piltdown (Sussex) supported the conclusion that the deposit is a varied shingle-bank, and that the three layers containing Palæolithic remains and derived Pliocene fossils are approximately of the same age. Many elongated flints and pieces of Wealden sandstone were observed in the bottom sandy clay with their long axis more or less nearly vertical. No teeth or bones were found, but one nodular flint obtained from the same layer as Eoanthropus seems to have been used by man as a hammer-stone. This is not purposely shaped, but merely battered along faces that happened to be useful when the stone was conveniently held in the hand. In the winter of 1915 the late Mr. Charles Dawson discovered in a ploughed field, about a mile distant from the original spot, the inner supraorbital part of a frontal bone, the middle of an occipital bone, and a left lower first molar tooth, all evidently human. These are rolled fragments, and the first and third may be referred with certainty to *Eoanthropus dawsoni;* but it is doubtful whether they represent more than one individual. In mineralised condition they agree with the remains of the type-specimen. The piece of frontal bone exhibits the characteristic texture and thickness, with only a very slight supraciliary ridge, and a small development of air-sinuses. The occipital bone is somewhat less thickened than that of the original specimen of Eoanthropus, and bears the impression of a less unsymmetrical brain. In an appendix Prof. G. Elliot Smith expresses the opinion that the endocranial cast of the fragment of frontal bone presents features more primitive and more ape-like than those of any other known member of the human family.

Zoological Society, February 20.—Dr. A. Smith Woodward, vice-president, in the chair.—C. J. C. **Pool**: Insects reared in the insect house during 1916. Experiments showed that melanic variations of the magpie moth (*Abraxas grossulariata*) were not connected with melanic variations in the larva. In the case of dragonflies, although the larvæ of several British species had been reared to maturity, it was found impossible under the conditions to feed the full-grown insects, which survived only a few days after emergence from the water. Similarly, it was found impossible to feed various species of Longicorn Coleoptera, although other beetles, differing as widely in diet as Carabidæ and Lamellicorns, fed readily on banana. Experimental feeding with beetles of the genus Necrophorus showed that while these insects were refused by meerkats (Suricata) they were eaten by a mongoose and Capuchin monkeys.—A. de C. **Sowerby**: Heude's types of artiodactyle ungulates in the Sikawei Museum, China. In the case of the species of Sus, Cervus, Capricornis, and Nemorhædus it was shown that Heude had disregarded variations due to age, season, and other causes, and that in each of these genera the number of species must be greatly reduced.—G. A. **Boulenger**: The lizards of the genus Philochortus Matschie.

March 6.—Dr. S. F. Harmer, vice-president, in the chair.—Dr. F. E. **Beddard**: The scolex in the Cestode genus Duthiersia, and the species of that genus.—Capt. S. R. **Douglas**: Results of an experimental investigation of the migration of woodcock breeding in the West of Ireland. The paper, among other interesting points, showed an increase in the number of woodcock breeding in the West of Ireland.

Linnean Society, March 1.—Sir David Prain, president, in the chair.—J. C. **Mottram**: Observations upon the feeding-habits of fish, more especially of *Salmo fario*, and of riverside birds. These observations, extending over a period of eight years and supplemented by from between 500 and 600 autopsies, show that the liability to attack of any species depends upon many factors, such as the general and special hunger of the preyer, the total and relative abundance of the food-supply, the abundance and ease of capture of the preyed upon, and its relative palatability. It follows that in order to estimate the palatability value of a species, it is necessary to take into account all these factors. The observations indicate that species cannot be sharply divided into palatable and unpalatable. Observations are also recorded which show that both fish and birds are deluded by rough resemblances to insects on which they may be feeding, and that therefore a rough mimicry may be of some value in the struggle to exist.—Dr. J. C. **McWalter**: A note on botany in Malta. The note began with remarks on the prevalence of *Oxalis cernua*, Thunb., in Malta, still as universal as it was more than twenty-five years ago, when Prof. George Henslow wrote about it (Proc. Linn. Soc., 1890–92, pp. 31–36), which is still quoted as the most recent contribution to its study. Seasons at Malta are numerous, uncertain, and erratic, but the Cape sorrel seems most prevalent in March and April; it is now called "The English Weed." Dr. McWalter next suggested the cultivation of certain medicinal plants, of which the present supply is short, but well adapted in his view for growth in Malta. "Labour is, as a rule, cheap, and though an era of prosperity now prevails on account of the war, it is thought that great distress will prevail afterwards unless useful work be provided for the people."

CAMBRIDGE.

Philosophical Society, February 5.—Dr. Marr, president, in the chair.—Dr. **Marr**: Submergence and Glacial climates during the accumulation of the Cambridgeshire Pleistocene deposits. Near Narborough, at March and elsewhere in the fens marine deposits occurred from below fen-level to a height of at least fifty feet above present sea-level, indicating a submergence followed by re-emergence. Evidence was given to show that the later Pleistocene deposits of the neighbourhood of Cambridge indicated the same two movements, and that the encroachment of the sea took place in Lower Palæolithic times, and the recession in Upper Palæolithic times. The climate in Lower Palæolithic times was apparently warm, and there is some evidence of a cold period at the end of these times. Warmer conditions probably followed, and towards the end of Upper Palæolithic times a second period of cold is marked by the presence of the reindeer and an arctic flora in the pit near Barnwell Station. Prior to the Lower Palæolithic times the chalky Boulder Clay was accumulated; we therefore seem to have evidence of three cold Pleistocene

periods. This accords with the views of Continental geologists.—P. **Lake**: Glacial phenomena near Bangor, North Wales. During the Glacial period the valley of the Ffryddlas was blocked at its mouth by the Ogwen glacier and converted into a lake. The valley shows three terraces, and three corresponding overflow channels are cut in the ridge which bounds the valley on the north. One of these overflow channels debouches high up on the seaward slope of this ridge, and it is concluded that there was water up to this level. Other evidence on the seaward slopes of the neighbouring hills points to a similar conclusion; but there is nothing to show whether this water was the actual sea- or fresh-water dammed up by ice in the Irish Sea.—H. **Woods**: The Cretaceous faunas of New Zealand. The Cretaceous deposits of New Zealand rest unconformably on older deposits, and in the South Island are usually succeeded by the Amuri Limestone of Tertiary age. Two faunas have been recognised; one of approximately Gault age, the other of Upper Senonian age. Both faunas are of the Indo-Pacific type.—R. I. **Lynch**: Exhibition of the fruit of Chocho *Sechium edule*: remarkable in the nat. order Cucurbitaceæ, native of the West Indies, and cultivated also in Madeira as a vegetable.—G. N. **Watson**: The limits of applicability of the principle of stationary phase.—H. C. **Pocklington**: The direct solution of the quadratic and cubic binomial congruences with prime moduli.—C. E. **Weatherburn**: The hydrodynamics of relativity.—R. **Hargreaves**: The character of the kinetic potential in electromagnetics.—Dr. M. J. M. **Hill**: The fifth book of Euclid's elements. (Fourth paper.)—G. H. **Hardy**: A theorem of Mr. G. Pólya.

DUBLIN.

Royal Dublin Society, February 27.—Mr. R. Lloyd Praeger in the chair.—G. H. **Pethybridge** and H. A. **Lafferty**: Further observations on the cause of the common dry-rot of the potato in the British Isles. In all the cases (thirteen) of dry-rot of the potato tuber examined during the last few years from Ireland, Scotland, and England, *Fusarium caeruleum* (Lib.), Sacc., has been found to be the causative parasite. It attacks the tubers only and does not cause a "wilt" disease of the growing plant. Susceptibility to infection increases with increasing maturity of the tubers. Infection usually occurs through wounds, but can also occur in the absence of them. The fungus also causes a rot in tomato fruits. *F. arthrosporioides*, Sherb., is to be added to the list of species of Fusarium pathogenic to the potato tuber.

MANCHESTER.

Literary and Philosophical Society, January 23.—Prof. S. J. Hickson, president, in the chair.—Prof. G. **Elliot Smith**: The endocranial cast of the Boskop skull. Dr. Péringuey, director of the South African Museum, has submitted for examination and report an endocranial cast obtained from the fossil human skull found near Boskop, in the Transvaal, in 1913. Apart from the right temporal bone, the base of the skull is missing; but sufficient of the calvaria has been recovered to show that the capacity of the cranial cavity must have been well above 1800 c.c., perhaps even as much as 1900 c.c.—greater than that of the philosopher Kant's skull, and almost as large as Bismarck's. The flatness of the cast and certain of its features suggest affinities of the Boskop man with the Neanderthal race. But the larger size, and especially the form, of the prefrontal bulging indicates an even closer kinship with the peoples found in Europe in Aurignacian and later times. The conclusion that seems to emerge from a comparison of the cranial casts of extinct varieties of mankind is that the chief factor which above all others determines brain superiority is not so much mere bulk as the size of the prefrontal area.—Dr. G. **Hickling**: The skull of a Permian shark. A preliminary statement was made concerning the results of a re-examination of certain remains of the skull of *Diacranodus texensis*, Cope, sp., now in the Manchester Museum. The material is sufficient for a practically complete restoration of the cranium and jaws, while there is some indication of the character of the branchial apparatus, not hitherto described.

PARIS.

Academy of Sciences, January 29.—M. A. d'Arsonval in the chair.—H. Le **Chatelier**: Some scientific problems to be solved. Problems awaiting solution are suggested in connection with glass, metallurgy, pyrometry, heating, and agriculture.—Ch. **Lallemand**: A French economic mission in Spain.—Remarks by M. E. **Perrier** on the earlier mission to Spain organised by the Institut de France.—G. **Bigourdan**: The first scientific societies of Paris in the seventeenth century. The Academies of Montmor, Sourdis, etc.—J. **Renaud**: The time on ships. At sea, it is customary to reset the ship's clocks every twenty-four hours to the local noon. Certain inconveniences of this plan are set out, and an alternative method is suggested.—V. **Commont**: The deposits of the historic period superposed on the Neolithic tufa of the valley of the Somme. The marine shells found in these deposits are débris of Gallo-Roman origin and have been carried to their present position by man.—Mlle. Yvonne **Dehorne**: A new species of Stromatopore from the Hippurite chalk: *Actinostroma kiliani*.—H. **Arctowski**: A correlation between magnetic storms and rainfall.—A. **Angot**: Value of the magnetic elements of the Val-Joyeux Observatory on January 1, 1917. The variation of the declination is the greatest that has been observed since the commencement of regular observations (1883).—P. **Sée**: Moulds causing alteration of paper. The moulds, or their spores, are present in new paper, and probably arise from the material used. In spite of the diversity of the material and the experimental conditions, the fungi isolated are always the same and their number is limited. A list of the species is given.—A. **Guilliermond**: Researches on the origin of the chromoplasts and the mode of formation of pigments of the xanthophyll group, and of the carotines.—L. **Bordas**: The *rôle* of the Ichneumonides in the contest against the parasites of forest trees. *Pimpla rufata* renders great service to agriculture by laying its eggs in the bodies of a number of caterpillars. It can be used to prevent or mitigate the ravages of *Tortrix viridana* on oak trees.—J. **Pavillard**: *Pelagorhynchus marinus*.—J. **Amar**: Observations on the prothesis of the lower limb. It is concluded that the prothesis of the lower limb is irrational, and out of harmony with the laws of physiology, of locomotion, and of economy of energy.—G. **Bourguignon**: Normal chronaxy of the brachial triceps in man.—M. **Busquet**: The vaso-constrictive action of nucleinate of soda on the kidney.—A. **Bach**: The non-specificity of the animal- and plant-reducing ferment.—A. **Policard** and B. **Desplas**: Tolerance of the tissue of war wounds in course of cicatrisation for foreign bodies of microscopic dimensions. The mechanism of latent microbism of certain cutaneous scars.

February 5.—M. Paul Appell in the chair.—G. **Bigourdan**: Some ancient observatories of the Provençal region in the seventeenth century. The observatory of Avignon. Sketches of the astronomical work of Bonet de Lates, Tondut de Saint-Legier, Payen, Gallet, Bonfa and Morand.—L. **Lecornu**: The

determination of the legal time. As an alternative to summer time produced by the sudden change of one hour, a gradual method is suggested, reducing the interval between each two consecutive midnights during the spring months by 30 seconds.—E. **Ariès**: The law observed by the four Massieu functions for bodies taken in corresponding states.—R. **Garnier**: The irregular singularities of linear differential equations.—W. H. **Young**: The theory of the convergence of Fourier's series.—Et. **Delassus**: The general notion of movement for holonomial and non-holonomial systems.—E. **Jouguet**: Secular stability.—H. **Villat**: A calculation of resistance in a limited fluid current.—L. **Fabry** and H. **Blondel**: The provisional elements of the planet discovered by M. Sy at Algiers, October 2, 1916. From the calculation of the provisional elements the planet would appear to be new.—F. **Grandjean**: The application of the theory of magnetism to anisotropic liquids.—S. **Meunier**: Complement of observations on the part played by micro-organisms in fossilisation.—A. **Robin**: Comparative analyses of the heart and muscles in healthy and phthisical individuals, with some therapeutic applications.—J. **Cluzet**: New electrical syndromes observed in the wounded.—M. **Ranjard**: Contribution to the study of the diagnosis of war deafness.

BOOKS RECEIVED.

Bengal, Bihar and Orissa, Sikkim. By L. S. S. O'Malley. Pp. xii+317. (Cambridge: At the University Press.) 6*s*. net.

Science and Education: Lectures delivered at the Royal Institution of Great Britain. Edited, with an Introduction, by Sir E. Ray Lankester. Pp. 200. (London: W. Heinemann.) 1*s*. net.

Plants Poisonous to Live Stock. By H. C. Long. Pp. vi+119. (Cambridge: At the University Press.) 6*s*. net.

Cours de Physique. By Prof. E. Rothé. Deux. Partie. Thermodynamique. Pp. xv+328. (Paris: Gauthier-Villars et Cie.) 13 francs.

Peaceful Penetration. By A. D. McLaren. Pp. 224. (London: Constable and Co., Ltd.) 3*s*. 6*d*. net.

Germanism from Within. By A. D. McLaren. Pp. x+363. (London: Constable and Co., Ltd.) 7*s*. 6*d*. net.

Field Crops for the Cotton-Belt. By Prof. J. O. Morgan. Pp. xxvi+456. (New York: The Macmillan Co.; London: Macmillan and Co., Ltd.) 7*s*. 6*d*. net.

DIARY OF SOCIETIES.

THURSDAY, MARCH 22.

ROYAL SOCIETY, at 4.30.—Observations and Experiments on the Susceptibility and Immunity of Rats towards Jensen's Rat Sarcoma: J. C. Mottram and Dr. S. Russ.—Problems Bearing on Residual Affinity: Spencer Pickering.—Residual Magnetism in Relation to Magnetic Shielding: Prof. E. Wilson and Prof. J. W. Nicholson.—The Solar and Lunar Diurnal Variations of Terrestrial Magnetism: Dr. S. Chapman.

ROYAL INSTITUTION, at 3.—Modern Improvements in Telegraphy and Telephony: Prof. J. A. Fleming.

ROYAL GEOGRAPHICAL SOCIETY at 5.—Modern Methods of Finding the Latitude with a Theodolite: Dr. J. Bell.

INSTITUTION OF ELECTRICAL ENGINEERS, at 8.—Machine Switching Telephone Gear: F. R McBerty.

ILLUMINATING ENGINEERING SOCIETY, at 5.—*Discussion:* Fluorescence and Phosphorescence and their Use to Produce Luminous Effects: Opener, F. H. Glew.

FRIDAY, MARCH 23.

ROYAL INSTITUTION, at 5.30.—Magic in Names: E. Clodd.

PHYSICAL SOCIETY, at 5.—Third Guthrie Lecture: Molecular Orientation: Prof. P. Langevin.

SATURDAY, MARCH 24.

ROYAL INSTITUTION, at 3.—Russian Idealism: S. Graham.

TUESDAY, MARCH 27.

ROYAL INSTITUTION, at 3.—Geological War Problems: Prof. J. W. Gregory.

ROYAL SOCIETY OF ARTS, at 4.30.—Land Settlement in South Australia: The Hon. F. W. Young.

ROYAL ANTHROPOLOGICAL INSTITUTE, at 5.—South Slav Customs and Beliefs as Illustrated in Old Ballads and in Tales by Serb Authors: Miss M. E. Durham.

INSTITUTION OF CIVIL ENGINEERS, at 5.30.—The Decimal System of Coinage, Weights, and Measures: H. Allcock.

WEDNESDAY, MARCH 28.

GEOLOGICAL SOCIETY, at 5.30.

INSTITUTION OF NAVAL ARCHITECTS, at 11 a.m.—President's Address: The Earl of Durham, K.G.—Standardisation as Applied to the Machinery for Cargo Boats: D. B. Morison.—A Method of Obtaining for Ship Design the Spacing of Bulkheads according to the Rules of the International Convention: W. J. Lovett. At 3 p.m.—Stress Determination in a Flat Plate: J. Montgomerie.—The Closing of All Ship Side Apertures from the Bridge: Signor E. Benvenuti.—Description of an Apparatus for Interpreting Stability for the Use of Shipmasters: T. Graham. At 7.30 p.m.—The Strength and Inner Structure of Mild Steel: Prof. W. E. Dalby.—Design of Pin Joints based on Ultimate Strength: Lieut. W. A. Scoble.

THURSDAY, MARCH 29.

ROYAL INSTITUTION, at 3.—Telephony: Prof. J. A. Fleming.

AERONAUTICAL INSTITUTE, at 8.—The Necessity for New and Special Treatment of Metals Employed in Aircraft Construction: J. de Kozlowski.

INSTITUTION OF NAVAL ARCHITECTS, at 11 a.m.—Further Experiments upon Wake and Thrust Deduction Problems: W. J. Luke.—Some Experiments on the Influence of Running Balance of Propellers on the Vibration of Ships: J. J. King-Salter.—Theory of Wave Motion on Water: Sir George Greenhill. At 5 p.m.—Marine Application of Reduction Gears of Floating Frame Type: J. H. Macalpine.—Launching: P. A. Hillhouse and W. H. Riddlesworth.—Buoyancy and Stability of Submarines: Prof. W. Hovgaard.

LINNEAN SOCIETY, at 5.—Prof. T. H. Morgan's Work on the Mechanism of Heredity: W. Bateson.

FRIDAY, MARCH 30.

ROYAL INSTITUTION, at 5.30.—Recent Developments of Molecular Physics: Prof. J. H. Jeans.

GEOLOGISTS' ASSOCIATION, at 7.30.—Cephalopoda, and their Value in Geological Study: W. F. Gwinnell.

SATURDAY, MARCH 31.

ROYAL INSTITUTION, at 3.—Russian Idealism: S. Graham.

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