

(4) Mangels, pasture grass, wheat-bran, brewers' grains.

(5) Swedes, molasses, cabbages, oats, pollards, rape-cake.

(6) Potatoes, barley, sharps, peas, beans, decorticated cotton-cake.

(7) Locust beans, rye, wheat, middlings, cotton-seed, maize-germ cake, palm-nut cake, linseed cake.

(8) Maize, maize meal, gluten meal, gluten feed.

Mr. J. Mackintosh dealt with the outlook in dairying, especially with regard to the return obtained (a) on the sale of milk, (b) on cheese-making. The effect of the control of prices was discussed, and the possible effect of the high prices now allowed for fresh milk on the use of condensed and dried milk imported from other countries where milk is more cheaply produced. Similarly, in connection with the control of cheese, it was pointed out that if the British cheese-maker cannot produce at a much lower price when control is removed, he will have to meet very severe competition, and the outlook cannot be regarded as satisfactory.

A joint meeting was held with Section K (Botany) to discuss forestry problems. Prof. A. Henry, in a paper on "The Afforestation of Water-catchment Areas," advocated the afforestation of all gathering grounds, not only as a hygienic measure, but also as a means of increasing the timber-reserves of the nation.

The enormous extent of these gathering grounds, more than 928,000 acres in extent, has not hitherto been recognised. Of this area 183,416 acres are owned by local authorities, but only in a few cases, e.g. Leeds, Liverpool, Manchester, and Birmingham, has the work of afforesting these gathering grounds been taken up seriously. Prof. Henry urged that all catchment areas still privately owned should be compulsorily acquired either by the corporation or by the State, and that all ground suitable for planting should be utilised.

Mr. R. L. Robertson, of the Forestry Commission, gave an interesting account of the work of his Department, but had little to say as to its future policy—a question on which the audience would have been glad of some information. Other speakers included Sir Daniel Morris, Prof. Somerville, and Mr. Duchesne. Mr. W. E. Hiley read a paper on "Sources of Infection of Forest Trees by Fungi."

The work of the Section concluded with an excursion to Iwerne Minster, by kind invitation of Mr. Ismay, where the home farm and stock were inspected.

ALEX. LAUDER.

UNIVERSITY AND EDUCATIONAL INTELLIGENCE.

THE annual oration in connection with the Medical Society of London will be delivered on Monday, May 10, at 9 o'clock, by Sir D'Arcy Power, who will speak on "The Rev. John Ward and Medicine."

THE Irish Geographical Association, which now enters upon its second year in close connection with the Geographical Association in Great Britain, has elected Prof. Grenville A. J. Cole as president for 1920, and Miss F. M. Berry, 15 Lower Leeson Street, Dublin, as hon. secretary.

THE following are among the forthcoming free courses of public lectures at Gresham College:—Physic, by Sir R. Armstrong-Jones (January 20 to 23); Geometry, by W. H. Waststaff (February 3 to 6); and Astronomy, by A. R. Hinks (February 17 to 20). The lecture-hour will be 6 o'clock.

A MEETING of zoologists was held in the rooms of the Linnean Society on Friday, January 9, to consider, among other matters, the teaching of zoology in

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schools and the salaries and remuneration of zoologists in general. Prof. S. J. Hickson presided, and after discussion the following resolutions were passed unanimously:—(1) That this meeting of British zoologists considers that paragraph 10 of the Report of the Investigators of the Secondary School Examinations Council, appointed to inquire into the methods and standards of award in the seven approved First Examinations held in July, 1918, referring to the subjects of natural history and zoology, is likely to discourage the teaching of zoology in secondary schools, and requests the Zoology Organisation Committee to take such steps as may seem desirable to submit to the Board of Education the views of zoologists on the subject. (2) That this meeting deplors the present difficulty in filling vacancies in the scientific staff of the Natural History Museum, and regards it as mainly due to the poor pay and prospects of the members of the staff. It is of the opinion that this, if not remedied, will react adversely not only on the work of the museum, but also on the advance of zoology in this country. It therefore requests the Zoology Organisation Committee to make such representations in the matter as may seem desirable.

UNDER the title *Discovery*, Mr. John Murray has just published the first number of a monthly periodical intended to promote intelligent interest in all branches of intellectual activity and practical achievement. The journal had its origin in a conference held a short time ago at which representatives of many literary, educational, and scientific associations were present. It has the blessing of these associations, and support in the form of suggestions for contributors and subjects of articles. It is to be maintained under a deed of trust, and the trustees, whose names appear on the cover of the magazine, include the presidents of the Royal Society and the British Academy. There is also a committee of management, which will apparently advise the editor, Dr. A. S. Russell, as to the suitability or otherwise of articles submitted or solicited. With such distinguished patronage and competent opinion, *Discovery* should be able to provide interesting fare month by month for the delectation and profit of many thoughtful minds. Prof. R. S. Conway, who has been largely responsible for the inception of the journal, opens the first number with an instructive article on "The Secret of Philæ," particularly with regard to Gallus the prefect and his relations with the poet Virgil. The other articles are on smoke-screens at sea, Dr. T. Slater Price; the modern study of dreams, Prof. T. H. Pear; discovery and education, the Master of Balliol; the Conference at Paris, J. W. Headlam-Morley; sound-ranging in war-time, Dr. A. S. Russell; and Spitsbergen, Dr. Rudmose Brown.

SOCIETIES AND ACADEMIES.

MANCHESTER.

Literary and Philosophical Society (Chemical Section), December 18, 1919.—Mr. H. N. Morris in the chair.—**H. Moore**: Future supplies of motor fuel. The author dealt with the possibility of meeting the future demand by an increased production of petroleum spirit; benzol as a motor fuel; alcohol as a motor fuel; and the advantages of mixed motor fuels, with particular reference to the compression pressures of engines and to the vapour tension of mixed fuels.

Literary and Philosophical Society, January 6.—Prof. F. E. Weiss, deputy chairman, in the chair.—**R. W. James**: The Antarctic: Shackleton's Expedition of 1914-17. A description of the life and scientific work of the expedition and of the explorations round the