

*Reports of Research Committees.*

Mr. R. S. Adamson presented a report on the vegetation of Ditcham Park, Hampshire, Miss M. C. Rayner one on the flora of the peat of the Kennet Valley, Mr. H. H. Thomas one on the Jurassic flora of Yorkshire, and Prof. F. E. Weiss on botanical photographs. The last-mentioned report recommends that all prints of ecological interest should be handed to the newly founded Ecological Society, and that all other prints should be housed in the botanical department of the University of Manchester.

C. E. M.

### EDUCATION AT THE BRITISH ASSOCIATION.

THE meetings of the section of Educational Science were in many respects the most successful of recent years. Attendance was uniformly good; both papers and discussions reached a high level of interest. The presidential address has already received a great deal of attention, and as copies will probably be still more widely circulated, we may expect it to stimulate a national educational stocktaking such as cannot fail to be fruitful.

Perhaps the most generally attractive morning concerned itself with the modern university. Sir Alfred Hopkinson, who opened the discussion made a sympathetic reference to the time when Oxford and Cambridge were in effect the sole training ground for clergymen, public officials, members of Parliament, and Cabinet Ministers. The value of this State service could hardly be exaggerated. The modern universities, in receipt of direct grants from central and local exchequers, must also concern themselves with the old ideal of raising up men and women fitted to serve in Church and State, but they must also contribute directly to the intellectual life of the people about them, as centres from which ideals may radiate amongst the general public and as sources of inspiration wherein the merchant and manufacturer may learn to care for things outside their business. He warmly protested against the heresy which regarded the university as existing to give degrees, whimsically suggesting that the latter must have been invented as a substitute for corporal punishment, and he dwelt upon the importance of research and of the communion between students and men who were engaged in advancing knowledge. Finally, he pleaded for freedom. Poverty would be better than wealth from State support if it meant State interference and control, though the right of the State to lay down conditions in respect of grants for special purposes, like the training of teachers, could hardly be questioned.

Sir Philip Magnus dealt with the professional outlook of the university, and in that connection welcomed the tendency to reduce the age of entrance. Dr. Maclean, formerly president of the Iowa State University, spoke eloquently of the work of universities in the United States and of their development since Harvard received its first State grant of 400*l.* a year in 1636. Mr. Mosely pointed to the danger attached to low emoluments. Business offered such attractive prizes to first-rate men that the universities were in danger of having to recruit their staffs from the second best. Dr. Hadow pointed out the variety and contradictory nature of the current views concerning universities and their function. "He who steers simultaneously for Scylla and Charybdis is in danger of missing both." He showed the greatly widened area of service which State and Church now offered, and emphasised the need of special regard to particular districts, though in that connection he reminded his

audience of the definition of utilitarianism in education—the application to useful purposes of knowledge that had ceased to grow. Sir James Yoxall doubted whether the path was as open as it should be to youths of ability; and Dr. H. A. L. Fisher reminded the section of the claims of women, especially in those centres where the district was inclined to regard the university purely from the point of view of industry and commerce.

From the point of view of educational science, the most important meetings were held in conjunction with the psychological subsection. Dr. Kimmins made a strong plea for the endowment of research in education, in which he was supported by Prof. Findlay, Dr. C. S. Myers, Prof. Green, and Mr. C. L. Burt. We have learned not to trust the superficially empirical viewpoint in medicine, and why do we cling to it in pedagogy? Nor is the old *a priori* road satisfactory in a study which is concerned with actuality. Experiment and research are essential to progress. The subsequent discussions on the psychology of reading and spelling brought out the need for a combination of the psychological and the pedagogical point of view in researches that concern class-room problems.

Sir William Ramsay and Sir Oliver Lodge spoke in favour of spelling reform. Sir Oliver Lodge thought we should not trouble very much about spelling, and Sir William Ramsay seemed to think in a phonetically written language there is no bad spelling. As to the former view, teachers would reply that they are concerned with people who cannot afford to spell badly. The president of the British Association may misspell words to his heart's content, but humbler people dare not; a spelling reform will not do away with error in spelling, nor will it prevent the necessity of learning to spell. In any case, there will always be a psychology of spelling and a right and wrong way of acquiring orthographic efficiency.

Mrs. Meredith presented an interesting paper on suggestion as an educative instrument. It was a plea for the rational treatment of the young in the interest of later years when the march of events either leads to the challenge of fundamental conceptions and much painful uprooting, or to intolerance born of prejudice derived from the suggestive influences of early life.

Mr. Burt's paper on mental differences in the sexes aroused a good deal of attention. He pointed out the need for, and difficulty of, distinguishing inborn from acquired character. His researches showed that the differences were less (but were by no means eliminated) when children from mixed schools were compared than when children from girls' and boys' schools were examined. Inborn differences seem to be largest in the simplest psychical processes. Emotional differences seem smaller, though of far-reaching consequence; on higher levels, differences between boys and girls become progressively smaller.

A discussion on the educational use of museums was attended by representative anthropologists and museum officials. There was general agreement that, whilst much had been done since the subject was discussed at the last Birmingham meeting of the Association, there was room for inquiry and further development in the direction of making museums more effective educational institutions. The discussion was opened by papers from Dr. Clubb, who described the ideal organisation of a museum as he conceived it, and Mr. Horwood, who confined his attention to the needs of the elementary school engaged in fostering the study of nature. Sir Richard Temple urged the importance of good housing and of educational arrangement. Donors, as well as visitors, were attracted in this way. Dr. Hoyle dis-

cussed the needs of the student and the layman. The latter needs good labels and effective guidance; the former wants access and privacy. The first duty of the curator was, however, concerned with neither. His primary business was to preserve.

Dr. Browne told what the Classical Association of Ireland were doing to encourage the use of *Realien* in the teaching of Latin and Greek. Dr. Bather would have special provision for children, and suggested the provision of fellowships and research scholarships in connection with museums. Dr. Haddon spoke of the courage needed to refuse irrelevant objects offered by distinguished donors. A clear idea of the object of the museum and unswerving adherence to that function was, in his view, essential to successful educational work.

Mr. Bolton, Dr. Harrison, and Mr. H. R. Rathbone supported a suggestion to form a committee to consider and report upon the whole subject of museum organisation from the viewpoint of their educational functions. Prof. Newberry described the work already done in Liverpool, and suggested that the label should be written first and the illustrative objects gathered about it. The general feeling that museums might be made to render better educational service was a particularly pleasing feature of the debate. A committee with representatives from Sections C, D, H, K, and L was subsequently formed, with the object of reporting to the Manchester meeting in 1915.

On Tuesday morning the section was busied with the subjects of compulsory school registration and manual work in education. Bishop Weldon, Dr. Sophie Bryant, and Mrs. Shaw spoke strongly in favour of State action in the matter. Bishop McIntyre, as representing Catholic feeling, supported the idea, with the proviso that schools were left free to determine the form and spirit of the education they provide. Mr. Ernest Gray thought action would be easier if provision were made for compensation in case a man's livelihood were taken away. Mr. A. Mosely opposed any such idea as compensation in such cases. The State cannot compensate for inefficiency.

The papers on manual work in education were read by Mr. P. B. Ballard, Mr. T. S. Usherwood, and Mr. W. F. Fowler. Mr. Ballard offered interesting evidence of the stimulating effect of handwork in school; Mr. Usherwood and Mr. Fowler, from the secondary school and primary school point of view respectively, argued in favour of freedom and initiative as opposed to series of graduated exercises based upon an adult view of the elementary processes involved in manipulation. A short discussion followed, in which the old battle between freedom and technique was fought, though the feeling of the meeting was clearly in favour of the newer view.

The last meeting of the section was given to a discussion on the subject of the working of the Education Act of 1902. Sir George Fordham opened in an interesting review of the problems which the Act presented to a county area like that of Cambridge, and of the way his authority had met them. Mr. W. A. Brockington joined issue with those who regarded the act as a failure and who called for a reversion to *ad hoc* authorities. The birth of an interest in secondary education was directly due to the Act. At the same time, some amendments in detail were called for, amongst others those sections dealing with differential rating and with foundation managers of non-provided schools. Alderman Pritchett, Mr. Ernest Gray, and others also spoke warmly of the working of the Act and of the importance of coopted membership to education authorities. Mr. Norman Chamberlain took up the cause of the primary school, and expressed his profound dissent

from the pessimism of the presidential address. The section closed with a vote of thanks to the president, moved by Sir George Fordham and seconded by Mr. Ernest Gray.

#### BEIT MEMORIAL FELLOWSHIPS.

A MEETING of the trustees of the Beit Memorial Fellowships for Medical Research was held on December 17. Dr. F. Gowland Hopkins, F.R.S., was appointed a member of the advisory board in succession to Sir William Osler, Bart., F.R.S., resigned. The Francis Galton Eugenics Laboratory was recognised as a place of research. The annual election to Beit Fellowships was made. The following persons were chosen this year, and we give in each case the character of the proposed research and the institution at which the work is to be carried out.

Dr. John O. W. Barratt, study of nature and mode of action of substances contained in or derived from blood plasma and taking part in plasma or serum reactions; also cytological studies—the Lister Institute; Dr. Myer Coplans, study of immunity with special reference to the action of silicates (including the asbestos minerals, slag, wool, and the zoolites) on bacterial and allied substances—Lister Institute; Mr. Egerton C. Grey, bacteriological chemistry, with special reference to the relation between bacterial enzymes and chemical configuration—the Lister Institute; Mr. John R. Marrack, the chemical pathology of arthritic diseases—(1) the estimation of the uric acid in the blood of patients suffering from certain types of arthritic disease; (2) continuation of the work on calcium metabolism and organic acid excretion—Cambridge Research Hospital; Mr. Victor H. K. Moorhouse, the investigation of the metabolism of animals as indexed by the respiratory quotient under various conditions, with special reference to the question of diabetes—the Institute of Physiology, University College, London; Dr. G. E. Nicholls, to continue research on "the investigation of the structure and function of the subcommissural organ and Reissner's fibre," which up to the present time has been principally concerned with the lower vertebrates; the study of the "pineal region of the brain"—the Biological and Physiological Laboratories at King's College, London; Dr. Annie Porter, on the parasitic Entozoa, more especially Protozoa and Helminthes, infecting vertebrates and certain invertebrates—The Quick Laboratory, Medical Schools, Cambridge; the Liverpool School of Tropical Medicine; and, if possible, the King Institute of Preventive Medicine, Madras, or the Wellcome Research Laboratories, Khartum; Mr. J. G. Priestley, investigation into the factors concerned in the regulation of the excretion of urine—Physiological Department, Oxford; Miss J. I. Robertson, the comparative anatomy and physiology of the heart in the first instance; also the study of the vertebrate nervous system—the Victoria Infirmary, Glasgow; Miss M. Stephenson, the metabolism of fats and its relation to that of carbohydrates in the animal body, having special regard to the light afforded by the study of the fat metabolism of diabetic animals—Institute of Physiology, University College, London; Mr. J. G. Thomson, the cultivation of Protozoa (the intention is to obtain knowledge of the toxins elaborated by these and the antibodies formed); the cultivation of tumour tissues—the Lister Institute.

Each fellowship is of the annual value of 250*l.* payable quarterly in advance. The usual tenure is for three years, but the trustees have power in exceptional cases to grant an extension for one year. All correspondence should be addressed to the honorary secretary, Beit Memorial Fellowships for Medical Research, 35 Clarges Street, W.