

definite X-borne gene was suspected. Gershenson (1928) found a similar gene in *Drosophila obscura*, and showed that it was indeed resident in the X-chromosome. A male carrying this gene produces very few sons, regardless of the genetic nature of his mate. More recently (1936) Sturtevant and Dobzhansky have found that this gene has a very wide geographical distribution in both races of *Drosophila pseudo-obscura*, that it is sex-linked, lying in the right arm of the X-chromosome, and being associated with a small inversion. Cytological study has shown that in these cases the X-chromosome undergoes equatorial division at each meiotic division, whilst the Y-chromosome degenerates, with the result that a male carrying this gene produces nearly all X-sperm instead of the usual 50 per cent. It is to be expected, of course, that a sex ratio gene of this kind would be discovered only if its effects upon the sex ratio were profound. But the existence of such genes permits us to assume that other genes of the same kind, having less severe effects upon the heterogametic mechanism, also exist and are responsible for minor distortions of the sex ratio. If such

genes do exist, then, of course, they can be incorporated into, or extruded from a genotype, and upon them selective agencies can work their will. These sex ratio genes may perhaps provide a partial explanation of the observation that hybridization commonly is attended by marked distortions of the secondary sex ratio.

But all this is so much speculation, and the only justification for toying with such ideas is that criticism may be aroused and experimentation launched. I have presented evidence to show that three possible causes of sex differences in mortality have to be considered: (1) sex-linked lethals, (2) sex-limitation of defects and derangements, and (3) sex-dimorphic physiological and endocrinological differences. It seems probable that sex-linked lethals play only a minor part and that the defects and derangements that have come to be manifested only or more completely in the male owing to his relative unimportance in respect of propagation, constitute the major cause, though as yet too little is known of sex differences in respect of hormones and their effects to permit us to regard these as unimportant.

The British Association at Nottingham

THE British Association opened at Nottingham on Wednesday, September 1, at a time when local residents feared that a pleasant spell of very fine weather was to be rudely broken; but after a severe storm had passed over, the Association settled down to enjoy days of bright sunshine. The attendance of more than two thousand members is regarded as quite satisfactory, and there is no doubt that those visiting the city for the first time were definitely impressed by the delightful setting of the University College and the accommodation it provided. The opening presidential address on the history of evolutionary thought was well supported, and Prof. W. W. Watts, in moving a vote of thanks, suggested that the fact that Sir Edward Poulton had a son who was president of a Section provided a proof of natural selection.

The presidential addresses to the Sections were crowded. Mr. H. G. Wells had some striking things to say about education, but, so far as one could judge, they served only to increase the admiration and adulation of the professional members in his audience. His contentions were, in a way, supported by Prof. E. J. Salisbury's address to Section K (Botany), which one member described as "short, simple and lovable". They were also supported by speakers at a later discussion on the

educational function of a university. Prof. F. A. E. Crew's presidential address was regarded as one of the most stimulating of the whole meeting. It was, however, in Section A that records were broken in an extraordinary manner by Dr. G. W. C. Kaye. Here, for the first time, a president took acoustics as the subject of his address, and delivered it, appropriately enough, in a lecture theatre designed by Prof. E. H. Barton just before his death. Moreover, the address was for the first time illustrated by experiments, in which a selection of some forty motor-horns were used with great effect to produce another record in noise. Perhaps it was the general appeal of the subject which caused Section A to be crowded out and to provide a further record in the nature of a repeat performance of the experiments later in the day. Section A must also be credited with another record, which it certainly did not seek; one of its most pleasant social activities appeared in the programme under the heading "mystery trip".

The general discussions had clearly been well planned. Dr. F. L. Pyman's presidential address to Section B opened a stimulating symposium on various aspects of chemotherapy, while, at the same time, local geologists, headed by Prof. H. H. Swinnerton, had the pleasure of describing the geology of the Nottingham district to Section C.

Section A enjoyed a general discussion on the mode of action of the photographic plate, in which a theory of latent image formation put forward by Prof. N. F. Mott was closely followed. Sections A, B and I gathered to hear a useful symposium on surface action in biology initiated by Dr. Irving Langmuir. Prof. D. Brunt added much interest to a discussion of the upper atmosphere by releasing a sounding balloon, carrying a Dines meteorograph to record the pressure and temperature at different stages of its ascent, and a ten-shilling note with an I.O.U. for a like sum to ensure its return. The balloon was released in the College grounds on Monday morning in the presence of an enthusiastic crowd. Less spectacular, but of considerable interest to local members, was the joint discussions of Sections C and E on the potential mineral resources of Nottinghamshire and Lincolnshire and their geographical significance. Perhaps the star turn in the joint discussions was the meeting of Sections C, D, E, F, K and M on Tuesday evening to talk about planning the land of Britain.

There can be no doubt that from a scientific point of view the Nottingham meeting was an unqualified success. From a social point of view it was equally pleasant. The excellent hostel accommodation, situated so close to the College and in the same beautiful surroundings, contributed greatly to the happiness of visiting members. The civic reception was obviously thoroughly enjoyed by guests and hosts alike, the flood-lit gardens of the Castle being much admired. Works visits, garden parties and excursions were heavily booked. Local firms and industrial undertakings were most generous in entertaining the Association. At the same time, the extraordinarily fine series of cinema films on subjects of biological interest, shown to members in the Savoy Cinema, proved to be a great attraction.

Forty-four years is the interval of time between the last two visits of the Association to Nottingham; it is to be hoped that, both on scientific and social grounds, the Association will not wait another forty years before it returns.

On September 3 the General Committee adopted the nomination of the Council of Lord Rayleigh to succeed Sir Edward Poulton as president of the Association. The General Officers will continue to be Prof. P. G. H. Boswell as General Treasurer and Prof. F. T. Brooks and Prof. Allan Ferguson as General Secretaries. The new members of Council are Prof. T. S. Moore, Mr. R. S. Whipple, Prof. H. J. Fleure, Prof. J. G. Smith and Prof. J. C. Philip.

Future places of meeting of the Association are Cambridge (Aug. 17-24, 1938) and Dundee (1939). Invitations have been received for the Association to meet in Swansea in any convenient year, in Belfast in 1941 or any year nearly following, and in 1943 in Birmingham.

Under the arrangement proposed last year by the Council and adopted by the General Committee, the British Science Guild was incorporated into the Association as from November 30, 1936. In accordance with the agreement of incorporation a British Science Guild Committee has been appointed to continue arrangements for lectures already initiated by the Guild, and for any others of similar character which may be approved by the Council. The first of the lectures arranged by the Association under the above scheme was the Alexander Pedler lecture, given in Leicester on May 3, in co-operation with the University College in that city, by Prof. Allan Ferguson. The first Norman Lockyer lecture to be so arranged will be given by Dr. R. E. Mortimer Wheeler in the Goldsmiths' Hall, London, by kind permission of the Goldsmiths' Company, on November 24.

The first of the triennial lectures under the foundation of Mr. G. Radford Mather will be given by the Rt. Hon. J. Ramsay Macdonald, M.P., F.R.S., in the Royal Institution, London, by kind permission of the managers, on October 22.

The Council records with much satisfaction that Lord Rutherford has accepted the presidency of the joint Congress of the Indian Science Congress Association and a delegation from the British Association in January next.

Obituary Notice

Prof. F. C. S. Schiller

PROF. F. C. S. SCHILLER, who died in Los Angeles on August 7 after a long and lingering illness, was born in 1864, the son of Ferdinand Schiller of Calcutta. He was educated at Rugby and Balliol, and graduated in the first class of *Literæ Humaniores*, winning later the Taylorian scholarship for German in 1887. For a few years (1893-97) he

occupied the post of instructor in philosophy at Cornell University. Then in 1897 he returned to Oxford, and became fellow and tutor of Corpus, where he remained for more than thirty years. His former pupils speak of him as a decidedly stimulating and suggestive teacher, who, although out of touch with the types of philosophical theory prevalent in Oxford, exerted considerable influence there as an