

and certificates, 68 and 16,307; City and Guilds examinations, 708, part-time; General Certificate of Education, 1,121 and 2,473; other examinations 813 and 2,989.

The Mathematical Association

THE annual meeting of the Mathematical Association was held in Manchester during April 9-12. In his presidential address, Mr. W. J. Langford (headmaster of Battersea Grammar School) gave an international survey of secondary school mathematics. The dangerous shortage of mathematics teachers in Britain was set in its world perspective. Prof. M. J. Lighthill (University of Manchester), speaking in place of Prof. H. Behnke (University of Munster), who was too ill to attend the meeting, urged that boys and girls should be trained to apply their mathematics to life and not to regard it as a piece of ceremonial ritual. Mr. C. Mack, of the British Cotton Industry Research Association, discussed a variety of problems, including those of friction in textiles and 'ballooning' in spool winding. This was followed by a discussion on the Association's report on the teaching of algebra in sixth forms, opened by Prof. M. H. A. Newman, of the University of Manchester, the president-elect and chairman of the Committee which prepared the report. Prof. Newman's theme was that the teacher's aim in the sixth form should be to provide good proofs with gaps which could be filled at the university. He considered that it was a mistake to force logical difficulties on the schoolboy's attention. Dr. C. B. Hazelgrove spoke of the work done on the electric computers at the University of Manchester; he considered the possibility that machines may be programmed to do, not just computation, but work in logic and algebra which would make significant contributions to mathematics. Dr. P. L. Taylor (Metropolitan-Vickers) unexpectedly stressed the need to teach not only the technique but also the philosophy of mathematics. Dr. R. D. Davies described the Jodrell Bank Experimental Station and said that it was planned to use the large radio-telescope as a radar transmitter and in particular to obtain echoes from the planet Venus.

New Zealand Journal of Agricultural Research

EXPANSION of research in New Zealand has necessitated the appearance of the *New Zealand Journal of Agricultural Research*, the first number of which appeared in February 1958 (1, No. 1. Pp. 123. Published bi-monthly. Annual subscription: 30s.; single issues: 5s. Wellington: Department of Scientific and Industrial Research; London: High Commissioner for New Zealand, 1958). It is one of three new journals replacing the *New Zealand Journal of Science and Technology* which was divided into two sections dealing with agricultural research and general research, respectively. This new journal, which is published in alternate months by the New Zealand Department of Scientific and Industrial Research, is not to be confused with the monthly *New Zealand Journal of Agriculture* established in 1910 and published by the Ministry of Agriculture.

The Vanishing Prairie

THOSE who saw the delightful Walt Disney film, "The Vanishing Prairie", will be interested to know that the London County Council has sponsored the production of a film strip with the same title and based on the film itself. An introduction shows the

extent of the prairie in the North American continent and how its fauna is changing and threatened with the advent of modern agricultural methods. Then follow stills of buffalo and bison, of natural formations created by erosion like Chimney Rock, Wyoming, the Rocky Mountain goat known locally as 'big horn', the coyote, the unforgettable stills from the film of the prairie dogs in their burrows and of cougars climbing trees. These and other stills from a film which scintillated with natural history photography will serve as good teaching material for a wide range of children and adults. The strip was made by Educational Productions Ltd., East Ardsley, Wakefield, Yorkshire, from which further details may be obtained.

United States National Museum

THE annual report of the United States National Museum for 1957 (pp. v+137. Washington, D.C.: Government Printing Office, 1957) states that planning for the interior of the new Museum of History and Technology proceeded throughout the year. The programme of modernization, now in its fourth year, continued and included halls depicting everyday life in early America, the history of power machinery and the large mammals of North America. The public response to these new exhibits continued to increase during the year and comment on their effectiveness was encouraging.

Transvaal Museum, Pretoria

THE annual report of the Trustees of the Transvaal Museum, Pretoria, South Africa, for the year ending March 31, 1957 (pp. 44. Pretoria: Transvaal Museum, 1957), deplors the difficult conditions under which the staff are obliged to work and the restriction of space which affects the exhibition and storage sections and prevents a full museum service for the public. Furthermore, in some cases, valuable exhibits are deteriorating. These are problems which, to a greater or lesser degree, confront museums throughout the world. The completion of the display rooms and cases in the Voortrekker Monument is reported, and an exhibition at the back of the Kruger House has been completed.

Personnel Management in the Small Firm

THE recent development of personnel management in industry has been mainly confined to medium-sized and large firms. Many small companies have felt that it has little significance for them, and this view has been confirmed by the lack of suitable publications to help them. To fill this gap, Mrs. J. M. Collingridge and Mrs. J. M. Ritchie have prepared a broadsheet on behalf of the Institute of Personnel Management (*Personnel Management in a Small Firm*. Pp. 55. London: Institute of Personnel Management, 1957. 4s. 6d.). After analysing the content of personnel management, the authors describe its significance in the small firm and its functions under the headings of employment, training and education, wages, communications, health and safety, and employee services. Other sections deal with systems of personnel administration in small firms, conditions of effectiveness of personnel administration, other approaches to personnel administration and the place of the personnel officer in the small firm. There are also appendixes containing case studies of personnel management practice in a multiple retail firm and in a small firm with no personnel department.