

both through enlightenment of the adult populations and through education of the coming generations. Both Lord Boyd-Orr's address and Prof. Blackett's article show that in Britain the British Association is already addressing itself to both aspects of the problem; but if scientists possess the special competence and responsibility attributed to them in the Vienna Declaration, these efforts will also require sustained support and constructive thought by professional associations of all kinds.

CORRESPONDENCE OF SIR JOSEPH BANKS

The Banks Letters

A Calendar of the Manuscript Correspondence of Sir Joseph Banks preserved in the British Museum, the British Museum (Natural History) and other collections in Great Britain. Edited by Warren R. Dawson. Pp. xlii + 965. (London: British Museum (Natural History), 1958.) £12 12s.

DURING the long reign of George III (1760–1820), and especially in the latter part, Sir Joseph Banks (1743–1820) was outstanding as the leader of scientific thought and development in Great Britain, above all in the realm of natural history in the widest sense. His great range of interests, his energy, his wealth, and his long term as president of the Royal Society, from 1778 until his death, enabled him to keep in close touch with the many and varied scientific activities of the period. Much has been written about Sir Joseph Banks but no full account of his voluminous correspondence and papers had been published, or even prepared, when they were largely dispersed, in part overseas, by sales in 1884 and 1886. The present volume is described as a Calendar and is concerned only with letters (originals or accepted *bona fide* copies) now in Britain. The extensive collections in other countries, especially in Australia, and the numerous reports, memoranda, or dissertations, mostly in his own handwriting, are not included. The letters listed with entries are now in the possession of many institutions and private persons, but the main collections are in the Department of Manuscripts of the British Museum, the Department of Botany of the British Museum (Natural History), and the Royal Botanic Gardens, Kew.

The Calendar as prepared and edited is arranged alphabetically on the basis of the names of the persons by whom or to whom the letters were written, and the letters are in order of date under the personal names, except for undated letters. For every letter there is given a concise epitome of its contents. So far as they have been traced, the dates of birth and death of the correspondents and an indication of their identity are given. Some idea of the magnitude of Banks's correspondence is given by the fact that the present Calendar contains entries of rather more than 7,000 letters and by the estimate that had the correspondence been intact the total would probably have been in the region of 50,000 or more. One has to remember that handwriting alone was involved, for in those days there were no typewriters or other modern devices for recording material not immediately to be published.

The work of reading and preparing explicit, if brief, entries of the contents of more than 7,000 letters

must have been very considerable. The entries are well prepared and throw a great deal of light not only on the numerous and varied interests of Sir Joseph Banks and on the history of science in mid-Hanoverian times, but also on the conditions of life in Britain and other countries at this period. The basic alphabetical arrangement makes it easy to consult the entries and an excellent index enables the reader to make quick reference to subject contents.

In a short notice of a work of this nature and size it is impossible to do more than give general impressions of the range and value of the contents. As a source-book or a guide to sources for many purposes it will have considerable value. The historian of science, or of almost any branch of science, will frequently have to consult it, but many entries record matters outside the field of science. Indeed, it is the great range of Banks's interests and involvements which strikes one most in perusing the pages of this book. As Sir Gavin de Beer says in the preface he has written for the volume, "There is scarcely an aspect of British public life in the reign of George III that is not represented at first hand in the Correspondence of Sir Joseph Banks". He was certainly a remarkable man, and a great many institutions and individuals benefited from his advice and his often very concrete help. The British Museum, the Royal Botanic Gardens, Kew, and the Royal Society owe him a great debt, while many of the entries record thanks for kindnesses to individual correspondents.

It is appropriate that the present volume should be published by the Trustees of the British Museum. Not only did Banks contribute so much to the collections, particularly to those now at South Kensington, and a considerable part of the correspondence recorded in the body of the book is the property of the Museum, but also the work was originally initiated by the editor and the late Mr. John Ardagh, who was then in charge of the Library in the Department of Botany where the valuable Dawson Turner copies of so much of Banks's correspondence are available for reference. The editor and the Trustees of the British Museum are to be thanked for a production worthy both of the subject and of the institution. W. B. TURRILL

AN INDIAN HISTORY OF SCIENCE

Bijnaner Itihas (A History of Science)

Vol. 2. By Sri Samarendranath Sen. In Bengali. Pp. xvi + 430 + 18 plates. (Calcutta: Indian Association for the Cultivation of Science, 1958.) Rs. 12.

THE first volume of this work (reviewed in *Nature*, 178, 1367; 1956) covered the period of ancient science up to the Roman empire; the second carries the story forward to the Renaissance and the birth of modern science. It amply fulfils the expectations aroused by its predecessor, indeed it surpasses them. The contents are divided into four parts. In the first part the author reviews the condition of scientific knowledge in medieval India. He discusses the contacts between Persia and the Mediterranean on one hand and China on the other, and carefully evaluates them. The most striking Indian contribution was in the field of mathematics and Mr. Sen summarizes the work of Varāhamihira, the sixth century polymath whom he calls the "Indian Pliny", of the great Āryabhat who—at the opening of the same