

now only 12.8 per cent of the total as against 12.9 per cent in 1947-48. The essential point is that policy should be formulated, not by the Ministry of Education or any authority concerned with one segment of the problem, but by some authority carrying a general responsibility, independent and strong enough to resist sectional pressure and to probe *ex parte* statements and capable of taking a balanced view of the requirements of Great Britain in regard to the supply of trained men and women, the resources available for the production of that supply, and the repercussions of the redistribution of the effort demanded upon other national needs; this applies not merely in science or technology but also in other fields. Without such a balanced view and wide responsibility, there can be little hope of a policy or programme which will meet the situation without involving waste of resources in man-power and materials that can ill be spared now, and will be hard to recoup by greater efficiency or productivity in the long run.

## NATURAL PRODUCTS OF INDIA

### The Wealth of India

A Dictionary of Indian Raw Materials and Industrial Products. Vol. 2, Part 1: Raw Materials. Pp. xx+427. Rs. 25; 40s. Vol. 2, Part 2: Industrial Products. Pp. xii+251. Rs. 15; 24s. (Delhi: Council of Scientific and Industrial Research, 1950-51.)

IN the last two decades of the nineteenth century considerable attention was paid by men of science in India, more especially by Warden and Hooper, to the study of Indian natural products. Much of this important work was summarized by Sir George Watt in his two classics, "A Dictionary of the Economic Products of India" and "The Commercial Products of India". Owing possibly to the rapid development in Europe and elsewhere of synthetic organic chemistry, this interest gradually waned. Only recently has there been a notable revival associated more especially with the names of Seshadri, Siddiqui and Venkataraman.

No doubt the study of Indian natural products will form one of the main subjects for research in the National Chemical Laboratory in Poona, while those plant products which have played so large a part in indigenous medicine will be examined at the Central Drug Research Institute opened last February in Lucknow. On that occasion Sir Edward Mellanby remarked: "It is an astonishing fact that whereas a large part of the plants, from which official drugs in the pharmacopoeia are made, are already found in this country, yet many of these drugs are imported in large quantities".

To future research workers in these fields the dictionary "The Wealth of India" will undoubtedly prove of great value. When Parts 1 and 2 of Vol. 1, covering the letters *A* and *B*, were reviewed (see *Nature*, 163, 743; 1949), the view was then expressed that the publication would prove indispensable to all those interested in natural products. This is equally true of the present work, Vol. 2, Part 1, "Raw Materials", and Part 2, "Industrial Products", which have now appeared under the editorship of Mr. B. N. Sastri, who has replaced Mr. B. L. Manjunath.

Part 1, which covers the letter *C*, comprises some four hundred pages and is liberally illustrated with excellent coloured plates and line drawings. It is clearly impossible within the scope of a brief review to refer in detail to the individual articles; but one cannot but be impressed by their high quality, their value being much increased by the numerous references to the original literature. In dealing with agricultural products, not only are details given of the most satisfactory methods for their cultivation, their processing and their chemistry, but also statistics are included of Indian production and exports. In the article on pyrethrins there is an informative table of the effect of this insecticide on the pests attacking Indian crops. In view of the fact that although the spinning mills are in India jute is mainly grown in Pakistan, the lengthy article on this subject is of particular interest, and it is clear that the cultivation of jute in India is being widely extended. It is hoped that this will not be allowed to curtail the growing of foodstuffs in which India is so lamentably deficient. It is natural in a dictionary covering so many subjects that it is not free from errors, and in some cases recent work has been overlooked. This is, however, a very minor defect. The book is beautifully printed and produced, and it is remarkably free from typographical errors. It can be most cordially recommended, and its low price (40s.), which must be below the cost of production, should ensure a wide circulation.

Outside India, Part 2, "Industrial Products", will have a much more limited appeal. The articles are very diverse, dealing with such subjects as cotton spinning, clocks, cigars and cigarettes. Perhaps the main interest of this volume outside India will be to indicate how rapidly industrialization is advancing. Naturally there is some overlap between Parts 1 and 2 as, for example, in the articles on camphor; but this is unavoidable. It may be anticipated that this account of Indian industries will act as a catalyst and stimulate the further advance of India as an industrial nation. Like Part 1, Part 2 is well illustrated and its cost (24s.) is low.

J. L. SIMONSEN

## CHEMISTRY OF HETEROCYCLIC COMPOUNDS

### Heterocyclic Compounds

Edited by Robert C. Elderfield. Vol. 1: Three-, Four-, Five- and Six-Membered Monocyclic Compounds containing One O, N and S Atom. Pp. ix+703. 88s. net. Vol. 2: Polycyclic Five- and Six-Membered Compounds containing One O or S Atom. Pp. vii+571. 120s. net. (New York: John Wiley and Sons, Inc.; London: Chapman and Hall, Ltd., 1950-51.)

THE need for an up-to-date reference book on the chemistry of organic heterocyclic compounds has been widely recognized for some time, and, from several quarters, indications have been given that the need was to be met. The publication of the first two of a projected series of volumes on the subject is consequently a matter of general interest, and Prof. R. C. Elderfield's work will be received with eagerness and carefully scrutinized.

In form, these volumes follow the now familiar pattern of a series of contributions by individual authors under a single editorship. It is the expressed