

Pharmacopoeias and Formularies. Harkishan Singh. I edn., 1994. Vallabh Prakashan, SU-221, Pitampura, Delhi 110 034. pp. xvi + 159. Price: Rs. 225 (hardbound) (US \$ 35.00). Illustrations 33. indexed.

A 'pharmacopoeia' is defined as a compendium of monographs on all medicinal substances, with their description and standards of quality. Early pharmacopoeias contained both pure drugs and their formulations as also non-medicinal agents used in the formulations (e.g. solvents, flavours, colourants, emulsifying agents, etc.) The present trend is to include only active pure medicinal agents as part of pharmacopoeia and relegate the pharmaceutical necessities and formulations to a dispensatory or formulary. A pharmacopoeia becomes 'official' when a statutory body is authorized to compile and publish it and includes only substances of proven efficacy and quality, as recommended by expert groups. Thus, the minimum standards as prescribed in the pharmacopoeia become the yardstick of progress of health care in a nation. A study of the evolution of an official pharmacopoeia would reveal the struggle of a nation and the endeavour of its government in providing best health care in terms of quality of drugs available to the patients.

The book under review is the first of a series on 'History of pharmacy in India and Related Aspects' planned by the eminent author Prof. Harkishan Singh. Prof. Singh is a scientist of international repute and has contributed a great deal to research in pharmaceutical chemistry, education and the profession. He has been associated with various bodies like the UGC, AICTE, PCI, NIPER, Pharmacopoeia of India, etc., and is able to add his personal knowledge to his writings. His scientific approach and meticulous detail can be witnessed throughout the book. As pharmaceutical historian Prof. Singh can be compared with Kremers and Urdang on the international scene and Prof. G. P. Srivastava on the Indian scene.

It may come as a surprise to many that the history of modern pharmacopoeia of India (IP) started with its publication in 1868, because the first British phar-

macopoeia (BP) itself was published in 1864, followed quickly by a second edition in 1867. The evolution of IP is inevitably linked with that of BP. Prior to the publication of the BP, nine editions of London pharmacopoeia (LP) since 1618 and twelve editions of Edinburgh Pharmacopoeia (EP) since 1699 were known. The author has unearthed evidence showing that these Latin versions of LP and EP were translated into English, Hindustani (in Nagari and Persian scripts) and Bengali for use by medical students in India, as early as 1824. The EP might have been the model for the Bengal Dispensary (1841) and the Bengal Pharmacopoeia (1844), the first exclusive publications on the Indian subcontinent, prepared by O'Shaughnessy at the Calcutta Medical College. The BP 1867 seems to have included several drugs of Indian origin and the manual was officially used in some British institutes and garrisons in India. The author records in great detail the birth of pharmacopoeia of India 1868 and the remarkable supplement to it a year later, authored by Moodeen Sheriff of Madras. This supplement contained vernacular synonyms (including Sinhalese, Burmese, Persian etc.) of the drugs in the IP 1868 and was possibly responsible for popularizing the IP. He further traces the conflicts of the colonial rulers and the British Government in London, which finally shelved all efforts to revise and continue publication of the IP in India, but made it mandatory to adopt the BP. However, the Indian and Colonial Addendum to the BP 1898 issued in 1900 was subsequently incorporated into the BP 1932.

The appointment of Drugs Enquiry Committee (Chopra Committee) in 1930 and its report are summarized in respect of the revival of IP. The publication of the Indian Pharmacopoeial List in 1946 and the Indian Pharmaceutical Codex in 1953 have been well documented as forerunners of the first IP (1955) in independent India. There is much history associated with the Chopra Committee Report, which also recommended comprehensive enactment governing drugs and pharmaceuticals in all aspects. Singh will possibly narrate these elsewhere in future volumes. The three editions of the IP (1955, 1966 and 1985) and the two Addenda (1989, 1991) have been well

examined by the author, bringing out their strengths and weaknesses. However, it is lamentable that in independent India, even after three editions of the IP, no authorized translations to Indian languages or at least vernacular synonym supplement have been published, though such a need was fulfilled in 1868.

The appointment of Pharmaceutical Enquiry Committee (1953), the National Formulary Committee (1956), the publication of National Formulary of India (1960, 1966 and 1979), the establishment of Central Indian Pharmacopoeia Laboratory and the Indian Pharmacopoeia Committees, have all been touched upon with the same detail by the author. Singh makes out a strong case for a permanent Indian Pharmacopoeia Commission in place of the IP Committees for each edition, to ensure periodic and prompt updating and revision of the IP. He cites the example of the British Pharmacopoeia Commission, established in 1929, which was responsible for the publication of BP 1932 and regularly every five years since 1948.

The book has sixteen chapters, references to original documents, an index and several illustrations, including reproductions of title and sample pages of some of the very early editions. Although the author has briefly mentioned other early publications in this country which have a bearing on the history of IP (e.g. Dymock's *Pharmacographia indica*, Bose's *Pharmacopoeia indica*, Pharmacopoeias of the Medical College Hospital at Calcutta and KEM Hospital at Bombay, Assam Pharmacopoeia, Kemp & Co.'s Prescriber Pharmacopoeia, etc.), the book is essentially a detailed history of the official IP and does not cover these other works. Also not included are the standard Pharmacopoeias of other systems of medicine. There are, today official Pharmacopoeias of Homoeopathy, Ayurveda, Siddha, etc., all of which may have equally fascinating history and evolution. This scholarly book will be an excellent addition to any library dealing with health sciences and related history as also to individuals with a passion for history of science.

P. GUNDU RAO

*College of Pharmaceutical Sciences
Manipal 576 119, Karnataka*