

**THE USES OF PLANTS: A MANUAL  
OF ECONOMIC BOTANY, WITH  
SPECIAL REFERENCE TO VEGETABLE  
PRODUCTS INTRODUCED DURING  
THE LAST FIFTY YEARS**

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The Uses of Plants: A Manual of Economic Botany, with Special Reference to Vegetable Products Introduced During the Last Fifty Years by G. S. Boulger

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**G. S. BOULGER**

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# THE USES OF PLANTS :

A Manual of Economic Botany,

WITH

*SPECIAL REFERENCE TO VEGETABLE PRODUCTS  
INTRODUCED DURING THE LAST  
FIFTY YEARS.*

BY

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# THE USES OF PLANTS.



## INTRODUCTION.

### I.—ECONOMIC BOTANY MORE THAN FIFTY YEARS AGO.

'As plants convert the minerals into food for animals,' says Emerson, 'so each man converts some raw material in Nature to human use. . . . Justice has already been done to steam, to iron, to wood, to coal, to loadstone, to iodine, to corn, and cotton; but how few materials are yet used by our arts!\*' It is no mean boast for botanical science that, from the first writings of the herbalists of the sixteenth century down to the present day, her chief votaries have never allowed the charm of pure science to divert their attention from the practical application of their studies to the wants of their fellow-men. From the days when Gerard (1545-1612) sent collectors to the Levant to supply his physic-garden in Holborn, and from the foundation of our great national collection by Sir Hans Sloane (1660-1753), whose correspondents

\* 'Representative Men,' London, 1870, p. 4.

sent him specimens from almost every corner of the globe then known, down to our own time, British naval and commercial enterprise, and that love of travel for its own sake that forms one of our most marked national characteristics, have been adding to our knowledge of the uses of plants. Our old-established Botanical Gardens have long carefully collected those species that have been used in medicine. The Physic Garden of Oxford, founded by the Earl of Danby in 1632, was the first. In 1690 the gardens at Hampton Court were placed by William and Mary under the charge of the botanist Plukenet (1642-1706), who sent collectors abroad; and about the same date Sloane presented the garden at Chelsea, afterwards rendered famous by the encyclopædic works of Philip Miller (1691-1771), to the Society of Apothecaries. In 1760 the Botanic Garden at Kew was established by the Princess of Wales, under the advice of Lord Bute (1713-1792), who was an enthusiastic botanist; and some notion of the assiduity with which plants were gathered together by special collectors during the reign of George III. (mainly through the efforts of Sir Joseph Banks, 1743-1820) may be formed from the fact that the second edition of the '*Hortus Kewensis*,' published in 1813, enumerates 9,800 species, as against 5,500 in the edition of 1789. Cook's voyages, on one of which he was accompanied by Banks, the discovery of the new world of Australasia, and its further exploration by Flinders, Robert Brown, and Ferdinand Bauer, added enormously to our knowledge of the plants of the world. Bauer, the artist, died in 1826; but Brown survived until

1858. He brought home 4,000 species as the result of the expedition, and his 'Prodrromus Floræ Novæ Hollandiæ,' completed in 1830, was thus no less important as a merely descriptive work than it was as introducing into England the Natural System of classification.

The acquisition of Linnæus's collections in 1784 by Dr. (afterwards Sir) J. E. Smith (1759-1828), and the foundation, four years later, of the Linnean Society, gave considerable impetus to botanical science in this country; whilst the Horticultural Society, founded in 1810, under the presidency of the eminent physiologist, Thomas Andrew Knight (1759-1838), carried out Sir Joseph Banks' policy of sending out collectors. By them the ill-fated David Douglas (1798-1834) was sent to supplement the work of Kalm, of Fraser, of Nuttall, and of the Bartrams in North America; whilst George Don was sent to Brazil, the West Indies, and Sierra Leone.

It would be difficult to exaggerate the great services rendered to botany by the successive officers of the East India Company, especially the surgeons, many of them trained in Edinburgh, who advanced the empire of Flora almost as rapidly as Clive and his successors did that of temporal sovereignty. So the work of Roxburgh, Colebrooke, and Roscoe was carried on by Wallich, Griffith, Wight, Royle, and Horsfield, and the vast collections were accumulated that, in 1880, were transferred to Kew.

Though, after the deaths of King George III. and Sir Joseph Banks in 1820, the Botanic Gardens at Kew retrograded from want of either Royal or